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CONTENTS.

April 1st.	Notes by the Way—What Shall the Harvest Be—Mutton Sheep—Galloway Cattle—National Crop Returns—Pencils Shipped by the Way	1
Berry Mutton.	Slobbering Horses—Horse Gasping	2
The Farm.—The Value of Crops—What Breed—An Experiment With Oats—Preserving Vegetables—Shelters for Sheep—Color of Horses and Cattle—Salting Butter—Agricultural Items.	2	
Horticultural.—Quince Culture—How Farmed—May All Mankind in Some Foreign Parts—Preparing for shipment to Eng.—Strawberry Culture in England—Lifting Pot Plants—Horticultural Notes.	3	
Agricultural.—Wheat—Corn—Oats—Hops and Barley—Cotton—Soybeans—Michigan Agricultural Society—Michigan Shorthorn Cattle Breeders' Association—Holstein Cattle Breeders' Association—Michigan Cr. vs. the British Grain Trade.	4	
News from Michigan.—General—Political.	5	
Poetry—Would We Be Willing—A Vigil.	6	
Miscellaneous.—The Fireman—Concerning Copper.	6	
A Wonderful Man—John Ganzhorn's Marvelous Impediment—Meat Versus Bread—Bucket Shop Decoy—Old Time Superstitions—How Came to Have Postal Currency—Varieties—Chad.	7	
Federary—Contagious Pleuro-Pneumonia.	8	
Commercial.	8	

Agricultural.

NOTES BY THE WAY.

The University City—The Country in Its Vicinity—What is Being Done in Small Fruits, Orcharding, etc.

During the past two weeks we have had an opportunity of visiting among some of the friends of the FARMER in the vicinity of Ann Arbor. Two days were passed with Mr. Evart Scott, who has a fruit farm a short distance from the city. With him a ride was taken out on the various roads leading into the city, and in the environs of no other city in the State have we seen more evidences of thrift and good taste, as exhibited by the surroundings of the homes of the inhabitants, than around Ann Arbor. Mr. Scott's farm is on the gravelled road which runs between Ann Arbor and Ypsilanti, which is a continuation of Washtenaw Avenue. The farm consists of about 70 acres, pleasantly located, of strong soil, and the immense crops that have rewarded the efforts of its owner show how productive it is. Mr. Scott has about half a mile of road front, and this he has cleaned up, put in nice shape, and planted a row of shade trees. The farm has a young orchard of twenty acres of apples and pears, but raising small fruits is the principal business of the proprietor. He has plantations of blackberries, raspberries and strawberries, and all the standard and newer varieties of grapes. The land has been underdrained, and the system of culture pursued by its energetic owner seems to have been peculiarly adapted to its capabilities and needs. In strawberries Mr. Scott relies upon Manchester, Woodruff and Mt. Vernon for his principal crop, although a number of others are grown. The plantations of Gregg black caps, the Haussel raspberry, and some of the standard varieties of blackberries are going into winter quarters in fine shape, showing a vigorous growth that proved their thriftness. The farm is beautifully rolling, and on two of the slopes are vineyards. About an acre is set out to the Niagara grape, which Mr. Scott regards as having a promising future. The Prentiss does not do well with him. His small fruits this year had turned out remarkably well, and he will increase his plantations largely the coming year.

WHAT SHALL THE HARVEST BE?

Farmers have now reached the end of the summer campaign. The harvest is past, the summer is ended, and if we have not saved enough out of the year's labor to meet current and contingent expenses bemoaning the fact will not change the result. It behoves us to study the lesson the season and markets afford and begin early to plan for the succeeding harvest. There are two ways of doing this, which may be termed definite and indefinite. The definite plan will decide at once what kind of crops, how much, and where they are to be grown. The indefinite one will have several plans, either of which may be the accepted one when the time arrives for action. It will be largely left to impulse and to present profit to determine. If corn should be relatively higher than other grain in the spring, oats would be abandoned and corn be the leading spring crop regardless of what should be the after crop and its chances of succeeding. So with other fields, all will depend upon the outlook at the time when the ground must be prepared for the crop. Seeding, and that rest and recuperation so necessary for successful crop growing must await the contingency of opportunity, often delayed long beyond the time when the needed rest should have been given. Then other fields will be subject to the same shifting plans, which have more the semblance and practice of card playing than judicious farming.

Every farmer who has had his farm in possession long enough to become acquainted with its capacity for production, knows by experience the exact amount of rest needed for maximum yields, and how often these rests should occur in the rotation. He also knows what crops are suitable and seem adapted to his soil and situation, and when he oversteps that prudential boundary he must expect to confront such a recoil as will counterbalance his indiscreet venture. This overcropping and out-of-line farming carries with it continually the ghost of other woes—failures in seeding, losses from drought and short pastures, which will appear to haunt his serenity of mind and make him a timid farmer, likely to forecast the future as disappointing and illusory.

The definite plan alluded to above makes farming more business-like and effective. It also has decided what crops succeed best on the soil in hand, and the periods of necessary rest. Then when a satisfactory experience has demonstrated, it proceeds to practice according to the settled facts. The harvests of the future are definitely determined as the running of trains on a railroad. If the soil is sufficiently strong to endure three crops before seeding and still improve, such a ro-

tation as will embody this will be practiced, and if only two grain crops can be profitably grown and sustain the fertility of the farm, such a rotation will be marked out as will subserve this farmer's interest. Farmers practicing, or who have decided to practice the definite plan, can now at their leisure take their farm map (or if they are not provided with such a convenience, an evening can be profitably spent in drafting one), and write the history of every field for years to come. Begin with the present year, and set down at the top margin of the field (the map should be large enough to admit of four square inches to the smallest field) the kind of crop grown this year, and so on through the list of fields. Then begin at the first field again for 1885. The probabilities are that these crops too are already outlined or foreshadowed in the mind so that it may not require much thought, but as the years succeed the interest will be awakened and the farmer will then begin to comprehend the intricacy of his calling. It may be necessary to make several maps before a perfect plan can be adopted. Pastures can be arranged to alternate in fields near the barn, or a rough field can be allotted for corn and pasture, to save the trouble of hauling harvesting and mowing machinery up hill or over uneven ground. The obstacles one meets in practical farming are here confronted. There is too little pasture and too many fields plowed. If the principle adopted is two years to grass, and two to grain, and this arrangement is rigidly enforced in this exercise of map-making, the moves will involve as much study and headwork as an evening at chess. The pleasant feature of this kind of farming is that mistakes and bad management can be looked back upon and rectified. Whereas our miscarriages in practical farming are usually retrospective, and we must accept the results as irreparable, however disastrous to our welfare.

The harvests in which Michigan farmers are most interested are corn, wheat, oats and meadow or pasture. With these properly distributed in the several fields in succession, any farm can be kept fertile, and with the aid of the manure even an increased production from year to year can be kept up. No harvest of the future need be less than the preceding, and will not be if a proper attention is given to what shall succeed. If every individual farmer will only attempt to grow such crops as are best adapted to his soil and conditions, and grow the several crops in such adequate proportions as his farm will admit, there will never come a time when his harvests will not yield him a remunerative return for his labor. The great trouble is we attempt to grow crops out of character and out of proportion to the soils and needs of the country. Every season discloses the fact that the country is short of some commodity which farmers are expected to supply. The granaries may be full of wheat, and the crib empty of corn. There may be a surplus of oats, but a scarcity of hay. Apples cannot supplement the lack of potatoes, nor beans be manufactured into buckwheat cakes. Every one has the same opportunities for a fore-knowledge of the world's wants and needs, and when one sees, or thinks he sees, an auspicious opening for a specialty, the chances are that he will be met at the harvest by a glut in the market, and his best laid plans come to naught. The world must be fed, and it wants a variety. This truth is all the prescience we need to forecast what the future demand shall be. If we wisely plant, our harvests will be acceptable, and the world will gladly exchange its shekels for our sheaves.

MUTTON SHEEP.

Southdown Breeders in Council.

The third annual meeting of the American Southdown Breeders' Association was held at the Sherman House, Chicago, on Tuesday night last. There were about 40 members present. Mr. J. H. Potts, of Jacksonville, Ill., President of the Association, called the meeting to order, and made an address. Among other things he spoke of the prosperous condition of the Association, and congratulated the members upon the completion of the first volume of the American Southdown Record.

He said that the earnest support received from American breeders of Southdown sheep gave no room to doubt the wisdom of publishing a record of the leading breed of mutton sheep.

The Executive Committee presented their annual report, which was adopted. It called attention to several points in Vol. 1 of the Southdown Record, saying that the volume contained in tabular form the pedigrees of 999 recorded rams and ewes, while the breeding of as many more animals will be found in the extension of pedigrees conveniently arranged for reference. Attention was called to the papers on the breeding and management of Southdown sheep by D. W. Smith, of Bates, Ill., Henry Woods, of Marion Hall, Thelford, Norfolk, Eng., and Henry Webb, of Streetly Hall, Linton, Cambridge, Eng. The growing popularity of this breed of sheep was considered a matter of congratulation.

The following officers were elected for the ensuing year. President, J. H. Potts, of Jacksonville, Ill.; Secretary, S. E. Prather, of Springfield, Ill.; Treasurer, D. W. Smith, of Bates, Ill.; Directors, M. F. Collier, of Kendallville, Ind.; John M. Palmer, of Springfield, Ill.; H. H. Spender, of Brooklyn, Ont.; D. W. Smith, of Bates, Ill.; J. H. Kissinger, of Clarksville, Mo.; Charles F. Mills, of Springfield, Ill.; George Pickrell, of Wheatfield, Ill.; A. L. Hamilton, of Lexington, Ky.; J. H. Potts, of Jacksonville, Ill.

The Secretary was authorized to announce that the Association is ready to receive entries for the second volume of the American Southdown Record.

A resolution was adopted reciting that since American breeders frequently find it necessary for the purpose of introducing fresh blood into their flocks to import sires from Great Britain, and since progressive breeders were not content to purchase imported rams on the strength of a mere certificate of purity, in order to secure the co-operation of English breeders, as well as to compete and extend the pedigrees of Southdown sheep tracing to English flocks, the Secretary is instructed to correspond with English breeders in regard to the recording of their flocks, and that he be authorized to receive for registration the pedigrees of dead ancestors or animals imported to this country free of charge.

The financial condition of the Association was reported to be in a very satisfactory condition.

The rules of entry for the second volume were considered and, after some discussion, approved. They can be got from the Secretary of the Association.

After transacting some routine business the Association adjourned.

GALLOWAY CATTLE.

Joint Sale of R. B. Caruss and J. L. Wickes of Michigan, at Dexter Park, Chicago.

The joint public sale of choice bred Galloway cattle belonging to Hon. R. B. Caruss, of St. Johns, Clinton County, Mich., and J. L. Wickes & Co., of Colby, Wis., took place at Dexter Park, Chicago, on Thursday of last week. The sale was conducted by Col. Judy, of auction fame, who exercises his best powers on behalf of his clients. The sale was fairly well attended by Galloway fanciers. Among those present were A. B. Mathews, of Kansas City, who has possibly the largest herd of Scotch Polled (Galloway and Aberdeen) cattle in the Union, and is regarded as the great champion of the Galloway; and W. C. Weedon, of Kansas City, Secretary of the Galloway Association of America, (who also owns some Anderdeens). These two gentlemen purchased the largest lots, and are to be congratulated on getting such handsome cattle at such moderate prices, for indeed the sale was anything but encouraging. Prices ruled extremely low for pure bred stock, the widespread dullness of trade seemed to have reached everywhere, and Galloways too. The cattle themselves were worthy of a better fate, for they were well haired, straight, well bred, handsome, useful stock, and reflected no little credit on the skill of the Hon. R. B. Caruss as a breeder. The cows seemed good breeders and excellent milkers. The sale was at a sacrifice to the owners, but they determined to carry out the sale unreservedly to the end, so that it can be recorded that it was an honest, straight sale in every respect. Mr. R. C. Auld, of Portage Lake, Dexter, Mich., was also present, showing that though a breeder of Aberdeen-Angus, he can appreciate a good Galloway beast. He is even ready to execute any orders in Scotland, where he goes this winter, for animals of the Galloway breed he may be intrusted with.

No. 1, Sally 365, was noticeable for having a considerable amount of white underneath for a Galloway; she was a straight topped cow and sold for \$100. Maggie 3d. No. 2, was a very fine blocky animal, and sold for \$130; both of these went to Mr. Bryan, of Iowa. Walter C. Weedon got the next, Hannah 512, cheap; this cow is one of Mr. Caruss' oldest cows, a matronly, lengthy, fleshy animal. No. 4, Miss 377, is a deep quartered, feminine like specimen, going at less than the cost of the sale. Poly 145, and her cow calf brought \$185, the highest price of the sale; she is a grand good milker, has a good calf, but the bids came "like drawing teeth and hard at that," at the auctioneer declared. Topsey 369, is well sprung in the rib, has lengthy quarters, is well filled in behind the shoulder, and is deep through the heart. She had a rattling good bull calf at foot, for which Mr. Caruss was offered \$200 before leaving home, but he had to suffer a deduction. Topsey 2nd. 334, went to W. C. Weedon at a moderate figure. Hannah 3d. 373, has good crops, is a straight, clean made beast.

Sam of Garleton, the celebrated imported bull of the herd, was started by A. B. Mathews, one of the best breeders at the sale, at \$60; from that he rose till he doubled it, and was turned off at \$150. He is very deep and lengthy, is level, and has a grand back rib. Mr. A. B. Mathews got the most and the best of the remaining bulls at moderate figures.

We understand Mr. Caruss has still

about half a score of animals left. We trust he will still stick to the Galloway, which are good hardy stock. He has some fine good stock at home, and we trust by another year he will be able to again come to the State Fair in as good shape as ever. The following is the sale list:

Sally 365—Calved March 10, 1879; \$100. M. E. Bryan, Montezuma, Iowa. Maggie 3d. 364—Calved April 12, 1879; \$130. M. E. Bryan, Montezuma, Iowa. Hannah 512—Calved January, 1871; \$72. W. C. Weedon, Kansas City, Mo. Poly 145—Calved April 10, 1870; \$150. S. H. B. 175—M. E. Bryan, Montezuma, Iowa. Hannah 3d. 568, Vol. 11—Calved March 15, 1883; \$70. W. C. Weedon, Kansas City, Mo. Topsey 369—Calved April 20, 1880; \$145. Gen. O. Ducat, Chicago. Maggie 3d. 364—Calved Nov. 8, 1882; \$75. W. C. Weedon, Kansas City, Mo. Poly 135—Calved Dec. 27, 1877; \$180. M. E. Bryan, Montezuma, Iowa. Sam of Garleton, 555, or 1610, 648—Calved April 10, 1880; \$150. Gen. O. Ducat, Chicago. Hannah 3d. 568—Calved Jan. 11, 1884; \$70. J. D. Smith, Eldora, Iowa. Romulus, 726, Twin—Calved March 19, 1884; \$75. O. B. Mathews, Kansas City, Mo. Remus, 728, Twin—Calved March 19, 1884; \$75. O. B. Mathews, Kansas City, Mo. Protection, 699—Calved May 27, 1884; \$80. J. B. Moore, Dunlap, Iowa. Scotch King, 701—Calved June 10, 1883; \$75. O. B. Mathews, Kansas City, Mo. Diamond, 747—Calved Feb. 28, 1884; \$75. O. B. Mathews, Kansas City, Mo. Diamond, 748—Calved April 11, 1884; \$75. O. B. Mathews, Kansas City, Mo. May Boy, 982—Calved June 7, 1884; \$50. O. B. Mathews, Kansas City, Mo. Hayworth, 984—Calved July 23, 1883; \$25. M. E. Bryan, Montezuma, Iowa. Baby Bird, 985—Calved April 30, 1884; \$65. E. Bailey, Mount Carroll, Ill. Peta Albert, 740—Calved April 22, 1884; \$45. H. Serl, Ripon, Wis. Hilldale—Calved April 28, 1884; \$45. O. B. Mathews, Kansas City, Mo. Twenty Dollars—Calved Jan. 7, 1880; \$70. M. E. Bryan, Montezuma, Iowa. Lorne 447—Calved April 13, 1879; \$80. W. C. Weedon, Kansas City, Mo. No. 28—Grade Galloway bull; \$36. J. C. Wright, Chicago.

NATIONAL CROP RETURNS.

The Condition of Cotton, Corn, and Potatoes.

The November returns of cotton to the Department of Agriculture relate to the yield per acre and show the effects of the long-continued drought in reducing the production. The lateness of killing frost has less effect than usual in enlarging the yield, as the vitality of the plants was too nearly exhausted to produce the top crop. The drought had not been broken at some points of the Gulf coast at the date of the returns. The indicated yield per acre is lower in nearly every State than in the census year, which was the one of average production. The lowest yields are now, as then, in Florida, Georgia, Alabama, and Texas. The reduction this year is very marked in the Louisiana and Arkansas region, the most productive cotton lands. Returns by States indicate a yield per acre as follows, the figures being subject to modification by fuller returns: Virginia, 180 pounds; North Carolina, 175; South Carolina, 152; Georgia, 135; Florida, 105; Alabama, 130; Mississippi, 175; Louisiana, 100; Texas, 143; Arkansas, 200; Tennessee, 160. The indications point to a yield somewhat larger than 1883 (when the yield was 5,700,000 bales), gathered in an unusually fine condition, of good color, unstained by storms and free from trash and dirt.

The returns of the rate of yield of cotton indicate a product somewhat in excess of 1,800,000,000 bushels, or an average rate of a small fraction above 26 bushels per acre. The best yields are, as in 1883, in what has been designated as the "Great American Desert." The arid regions in the vicinity of the 100th meridian have produced heavy crops of maize of a high quality. That line of longitude has ceased to be an absolute barrier to corn production or general farming, the rate of the yield in Nebraska being 33, Dakota 5, Kansas 38, Iowa 35, Missouri 34, Minnesota 33, Ohio 31, Illinois 30, Indiana 29, Michigan 27, Wisconsin 24, Kentucky 23. The Pacific coast returns yield 33 bushels in Washington Territory, California 30, and Oregon 28. The Southern States report a yield of 22 bushels in Maryland, 20 in Tennessee, 19 in Arkansas, 16 in Virginia, 15 in Texas, 13 in Mississippi and Alabama, 12 in Georgia, 11 in Georgia, and less in other States. The New England States average nearly 33 bushels, New York returns 30, and Pennsylvania 31. The quality of corn is better than in 1883 nearly everywhere, and in the northern belt is worth 25 to 75 percent more.

The potato crop is nearly an average yield, or ninety bushels per acre, and exceeds 190,000,000 bushels.

The beet sugar industry in France and Germany is suffering severely from the depression in values, as well as in Austria, Belgium and Holland. The price of sugar in the United States, though higher than in Europe, is cheaper than in any year since 1845 with one exception. Over-production of beet sugar in Europe is the reported cause of the present depression in value.

THURSDAY, NOVEMBER 21, 1884

PENCIL SKETCHES BY THE WAY.

A little way north of the village of Addison is the fine stock farm and herd of pure bred Holsteins belonging to A. Un derwood, who has been breeding this herd now numbers about forty-five head of choice stock, and is headed by the splendid bull Dennis 1344, bred from imported stock, and one of the best put up animals for his age that we have found. We regretted the absence of the eight year old Third Consul (weighing 3,000), usually called Art's Jumbo, who has done more to advertise this herd and breed in the United States than any other animal, as he has been shown at numerous State Fairs for the last three years, this fall through the circuit of the Northwest; and we learn it is the intention of his owner to have him winter at New Orleans. Among the females, all of splendid pedigree and milking records, we notice Lulu 609, Maartje 2529, Gorte 303, Cretonne 2049, Pleinje 933, Flavia 2016, Colette 2014, Beauty 91, Lambesta 2013, and numerous two year old heifers, and heifer and bull calves, all of merit—happily a pair in the lot—and to my admiration of the black and white can be found enough to feast their eyes on hours. Mr. Underwood has bred this fine herd from a small beginning up to its present size within the time mentioned, and his example is one that might be followed and equalled by many of the enterprising young farmers in our State that we have had the pleasure of meeting within the last eighteen months. They must remember that the pioneers of blooded stock in this State are fast passing beyond their days of usefulness, and that their mantle must soon be placed on younger shoulders,

**Horse Matters.****Slobbering Horses.**

The cause of slobbering of horses that are grazed on the after-math at this season is the presence of acid weeds in the herbage. Lobelia, St. John's wort, and ragweed often form the larger portion of the herbage, and this can scarcely be avoided so long as the second crop of clover is cut from fields infested with these weeds. Lobelia may soon be discovered by its pale blue, small, tubular or funnel-shaped flowers and its oval seed pods. It grows about nine or twelve inches high and is easily missed in a meadow unless one stoops low to seek it, when it will often be found abundantly. If one tastes it he will readily understand why it will produce the effect complained of. It has a strong, astringent flavor like that of tobacco, and may often be found in rows or second crop hay. St. John's wort is recognized by its five-petaled yellow flower, but most easily by its three-celled pods, which have three divergent, long, slender styles attached to the top of the pod; these are quite apparent in the flower, being the three-styled pistil with the three stamens. The petals have a number of dark purple dots upon them. Ragweed is too well known to need description; it has a strong, bitter, aromatic taste, which is not so bad as the preceding weeds, but it will cause some horses to slobber. Horses will refuse to touch these plants if they can avoid it, but when they are abundant cannot help eating some of them. To stop the slobbering give a handful or two of dry cornmeal or wheat middlings. The loss of saliva is a serious matter and greatly weakens the animal. The same trouble will occur when the second crop of hay—especially of clover—is fed to horses in the winter. Although cows are not as much affected in this way as horses, yet they are sometimes seriously inconvenienced when chewing the cud by a copious flow of green, watery saliva, and always the milk is more or less flavored.—*N. Y. Times.*

**Horse Gossip.**

GOLDEN, who drove the Michigan stallion Montgomery in his winning heats at Providence, says that he could have done the last mile in 2:17 or better, and \$10,000 was refused for the horse after the race. He is the inheritor by Jay Gould; dam, Lady Thorne.

At Lexington, Ky., after Maud S. had lowered her record on Tuesday last, Fred Benner's two-year-old colt Almont Dudley, by Mambrino Dudley, dam an Almont mare, trotted a trial mile in 2:35½, and B. J. Tracy's 16 months colt Bermuda, by Banker, dam by Mambrino Patchen, a half-mile in 1:19. Both remarkable performances.

The *Breeder's Gazette* has insisted all season that the running turfs are completely in the hands of swindlers that any reform cannot be expected. Since the trotting season has ended it is telling stories of the crooked work of drivers and owners that shows, if true, that trotting races are generally swindles, and managed entirely in the interest of the pool-box. The moral of the whole story is don't bet a cent on a horse race of any kind and you will never get left.

THE National Norman Horse Association met in Chicago, on Thursday last, adopted a constitution and by-laws, and other routine business was transacted. W. D. Straw, of Livingston County, Ill.; Captain Jordan, of Waverly, Ia.; Solomon Degen, of Illinois, and Col. Bridgeland, of Indiana, were elected directors of the Association, to serve one year. Among those present and taking an active part in the business of the meeting were: John Virgin, of Fairbury, Ill.; Joseph Morris, Pontiac, Ill.; Jacob Degen, Ottawa, Ill.; C. A. Perry, Williamson, Ill.; T. Butterworth, Quincy, Ill.; Isaiah Dillon, Bloomington, Ill.; S. Crumpler, Westville, Ind.; Levi Dillon, Sr., E. Dillon, Jr., M. Dillon, J. C. Duncan, Leo A. Dillon, E. Dillon, Sr., Elmer Hull, Mr. John Virgin, President of the Association, presided.

On Tuesday last a large crowd gathered at the Lexington, Ky., course to see Maud S. attempt to beat her record of 2:09%. The day was beautiful and the track in fine condition. Bar, the driver, after jogging a warming up mile in 2:35½, and stabilizing her for over half an hour, and again jogging her, got the word to go against her time. She reached the quarter in 28½ seconds, and the half-mile in 1:04. Here she was joined by a running mate. The three-quarters was made in 1:37 and the mile in 2:09½, amid the cheers of the multitude. The judges and timers were Major H. C. McDowell, Col. H. West, and W. H. Wilson. The next day she was taken out and jogged, and showed up well in her work. She was shipped to Cincinnati next morning, where she will winter.

AMERICAN importers are said to be turning their attention more than ever to English shire horses. The *Live Stock Journal* of London, Eng., says on this point: "When we hear that ten horses were purchased for America at Thorny Fen, and that the chief buyers at Singleton Park were American gentlemen, we may conclude that our cousins over the water are thoroughly alive to the value of the Shire breed. These are not the only indications of the increase of popularity of the Shire horse in America, for we have recently reported the purchase of many specimens of the breed for the United States, and we think it is extremely likely that the demand will increase as the breed becomes better known abroad. As a further confirmation of the accuracy of the statement made above, we notice that Mr. Sexton stated at Singleton Park that an American gentleman applied to him saying that he wanted from 100 to 200 Shire foals and yearlings about the beginning of November."

The Narragansett Driving Association, which was started two or three years ago, seems to be in bad shape, and the famous Narragansett trotting track and buildings are advertised to be sold at a foreclosure December 5. The Narragansett track has always been a bottomless pit for money. Its original cost to Amasa Sprague was \$382,000. When the Sprague property was sacrificed at auction by Trustee Chaffee it was bid off by J. B. Barnaby, a rich clothier who has a liking for a speedy horse. Mr. Barnaby, with his partner, H. B. Winslow, organized the Narragansett Driving Association, with a capital stock of \$25,000. The surplus over the cost of the track was sunk in the first year in trying to put the track in good condition. The second year \$15,000 was spent on the track, and as a result the track was made the fastest in the world, but a twenty thousand dollar mortgage was fastened on the property.

**The Farm.****The Value of Clover Sod.**

Henry Stewart, in the *N. Y. Times*, says:

"There are some certain mechanical effects produced upon the soil by the plowing in of a clover sod, and these effects are greater in proportion to the bulk of the vegetable matter turned under. A quantity of green clover which would make a ton of hay is equal to four tons of the green matter. The roots and stubble of such a growth of clover will amount to an equal bulk, or four tons more. Sixteen thousand pounds, or eight tons of green matter, is equivalent to 100 pounds upon every square rod of ground. What this is even, is not known, as it is by plowing a growing crop under, in alternate layers of vegetable matter, and four, five, or six inches of soil, as the furrows may be made, the soil is greatly improved in texture; a light, sandy loam is bound together and consolidated by this fibrous matter intermingled with it, and a heavy clay is loosened, opened and made porous. Either soil is far better prepared for its occupation by a mass of roots, and is better enabled to hold the moisture requisite for the growth of a crop."

A quantity of clover like that plowed in contributes to the soil a large amount of the most valuable fertilizing matter. The eight tons of clover leaves, stems and roots contain about 112 pounds of nitrogen, twenty-six pounds of phosphoric acid, fifteen pounds of sulphuric acid, sixty pounds of carbonic acid, 100 pounds of lime, sixty-seven pounds of potash, and about 60 pounds of soda, chlorine, magnesia, iron, etc. A ton of ordinary farm manure contains nine pounds of nitrogen, ten pounds of potash, and four pounds of phosphoric acid. Therefore the eight tons of clover add to the soil as much nitrogen as twelve and a half tons of manure, and about an equal quantity of potash and phosphoric acid with seven tons of manure. There is a considerable balance in favor of the clover, the greater, as nitrogen is the most valuable and costly of all the needed elements of fertility. But there is a danger to be taken of this considerable addition made to the fertility of the soil by the clover, and that is, it has been procured from sources where no other crop could procure it, and that is from a great depth, comparatively, in the subsoil. Clover is a root-rotted plant. It has thick, fusiform tap root, which penetrates to a great depth, and then sends out a multitude of feeders, which gather nutriment from a much larger space and depth of soil than any other plant. Furthermore, it has the habit of passing through its roots and leaves an enormous quantity of water, equal to 15,574 pounds per day for an acre, or in 100 days about 777 tons. This is seven times as much as is required or used by a wheat crop, whose roots occupy much less space and remain near the surface. It is thus seen why clover needs the long and far reaching roots, viz., to procure this copious supply of water, which could not be procured near the surface.

The different kinds were cut at various dates from August 4 to 19, the days of growth ranging from 100 to 119, and the yield was at the following rate per acre in bushels:

White Zealand..... 9½ Race Horse..... 6½

White Peasant..... 8½ Standard Trade..... 6½

White Dutch..... 8½ Pickle Farm..... 5½

White Russian..... 8½ Mammoth Icelandic..... 5½

White Ear-kar..... 7½ Mold's Ennobled..... 5½

White champion..... 7½ White British..... 5½

White King..... 7½ White German..... 5½

Yellow-w. Goldie Prize..... 7½ Alexander's No. 2..... 4½

Jac-h. Galton (from..... 7½ can) 'n triumph..... 4½

7½ Pe. le's Hybridized..... 3½

New Australian..... 6½ Chmn's Hulles..... 3½

White Scutocorn..... 6½ Hulles' Excelsior..... 3½

White Australian..... 6½ Pringle's Excelsior..... 3½

Challenge..... 6½ Hulles..... 3½

White Black Champion..... 19 Gold'n..... 6½

are white, large and fine. The Leghorns mature quickly, when they weigh three or four pounds, and are, I think, almost useless for table use. They are wild and intractable. A fence five feet high is Brahma proof. As much cannot be said of one or three times as high if the word Brahma be replaced by Leghorn. I can not recommend the Brown Leghorns, though I have a flock for sale. From my reading and a slight experience, I think I might almost say as much of the Spanish, the Hamburgs, and the White Leghorns. Though I am satisfied with the Light Brahmans, I have a desire to test the Games, because of their incomparable excellence for table use, and the Plymouth Rocks which are so highly recommended by those who have them. Yet I feel assured that this test, which I am to make in the coming years, will only serve to make me more a friend of the Light Brahmans. The grace and symmetry of the mature Light Brahma is fully comparable to that of our best-bred Short-horns, while their color forms a beautiful contrast to the green of the summer land-scape."

**An Experiment with Oats.**

Dr. E. Lewis Sturtevant reports upon twenty-nine varieties of oats raised this season at the State Experiment Station, Geneva, N. Y., on heavy loam soil fertilized with 400 pounds superphosphate per acre. They were planted April 26, in rows eighteen inches apart; there was but one day's difference in germination, and the surface between rows was occasionally stirred with a scuffle early in the season to destroy weeds and promote growth. The weather all through was very favorable for the crop. A striking difference was noted in respect to fungus attacks:

"Although oats have been introduced upon the market as rust-proof, none of the varieties tested were exempt from it. Smut was also quite prevalent, although some varieties were not affected, though growing side by side with varieties badly infested. The black oats were absolutely free from smut, while growing beside them on one side was the American Triumph, of which plants 10 per cent were smutty, while on the other side grew the Board of Trade, even smuttier than the American Triumph. The two varieties most affected by smut were White Australian and Board of Trade, the former containing nearly twice as many smutty heads as any other, with the exception of Board of Trade. Those not at all affected were Black Champion, Black Tartarian, Pringle's Excelsior, Hulless; Pringle's Hybridized Hulless, McMinn Russian, Mold's Ennobled, and Macmillan Russian."

The different kinds were cut at various dates from August 4 to 19, the days of growth ranging from 100 to 119, and the yield was at the following rate per acre in bushels:

White Zealand..... 9½ Race Horse..... 6½

White Peasant..... 8½ Standard Trade..... 6½

White Dutch..... 8½ Pickle Farm..... 5½

White Russian..... 8½ Mammoth Icelandic..... 5½

White Ear-kar..... 7½ Mold's Ennobled..... 5½

White champion..... 7½ White British..... 5½

White King..... 7½ White German..... 5½

Yellow-w. Goldie Prize..... 7½ Alexander's No. 2..... 4½

Jac-h. Galton (from..... 7½ can) 'n triumph..... 4½

7½ Pe. le's Hybridized..... 3½

New Australian..... 6½ Chmn's Hulles..... 3½

White Scutocorn..... 6½ Hulles' Excelsior..... 3½

White Australian..... 6½ Pringle's Excelsior..... 3½

Challenge..... 6½ Hulles..... 3½

White Black Champion..... 19 Gold'n..... 6½

These oats were grown in the same spot with greater success than if the location is changed, the New England Farmer believes it a popular error which has been copied and recited like the assertion that asparagus needs salt because it has been found growing wild near the sea coast. Our best gardeners have found, the Farmer says, that onions will grow well where they never grew before, as upon an old bed, provided the land is made sufficiently rich and mellow. Indeed, they often do best on new land, as old beds sometimes become infested with parasitic fungi, such as onion smut, rust, blight, etc.

"Sheep, in going in or coming out of their houses, crowd upon each other, all trying to get out at once; and in the crush the lambs are sometimes killed, while the sheep nearest the sides of the doorway are pushed against the timbers or stones, and often leave tufts of their wool on the sharp edges, or suffer bruises. To prevent this in part, the architect of the beasts recommends that the jambs should be provided with vertical rollers to prevent friction, and facilitate the movements of the sheep nearest the side.

"With the same idea, of preventing the crushing of the animals against the jambs, a platform, of the same width as the door, may be placed in on each side of it, slightly ascending to the threshold, which is raised. With these, the crowding sheep at the edge of the platform are pushed off before they reach the door.

"In allotting space for housing a flock, it may be useful to remember that the shorter diameter of a sheep, or the space he occupies when eating, side by side with others, is about twenty inches, while the average length is about five feet. The rack generally used for feeding, measures about nineteen inches in width, so that twenty inches by six feet seven inches, will be the space required for each animal while standing and eating."

**Color of Horses and Cattle.**

Long experience in England has proved that brown colored horses, and especially those of a tanned muzzle, prove the easiest. Next to these come the darker shades of bay. The same has been found to be the case in America, and then follow the clear dapple-gray. Other colors seem to be about equally hardy, although pure white and red roan are considered the least so. But we know horses of these two colors, as well as others varying from the first three above mentioned, to be perfectly hardy and enduring. As a rule, it is the breed, coupled with the soil and the food on which they are reared, which make the difference in hardness and endurance of horses, and the best of these should always be sought after by breeders and rearers.

The director explains that as the rows were but thirty-three feet long and only two of a variety, the average calculation per acre should have no other interpretation than any other crop and to subsist on much weaker food. It is as though an animal could live and thrive and grow upon milk diluted for times with water, and thus exist upon a very poor quality of food; or as though it could increase and grow fat upon straw, eating and digesting four times as much for the same effect as another could with the best hay and meal. This is the most important point to know and consider, because it explains very clearly why clover is so beneficial to soils, and why a farmer, by plowing in a clover sod, can grow a good crop of corn and another of oats, and still leave a remainder for the following small grain crop; or why, after a clover sod plowed in, in the summer, he can grow a very much larger crop of wheat than he could in any other way. And this increase of fertility is not exhaustive to the soil in any sense, because it is brought from a hitherto unexplored portion of it, that is inaccessible to any other plant.

**Preserving Vegetable Roots.**

Few persons, except market gardeners, understand the best method of keeping vegetables through the winter. It is a leading branch of the business of these to supply at all times these vegetables, which, as the winter advances, command increasing prices. They can afford, by the extent of the crops they raise, to provide suitable buildings, or rather cellars, to keep these crops, and have a sufficient supply at all times to meet the market demand, and realize the high prices which are usually commanded late in the winter and early in the spring. But the small growers of these vegetables, though many in number, cannot incur the expense of providing structures in which to preserve these roots for their own use, and have, therefore, to shift the best way they can in feeding out the roots to their limited herds of cattle. Heat and moisture are the two agents which, more than others, are hurtful to vegetable roots in general, and thus exist upon a very poor quality of food; or as though it could increase and grow fat upon straw, eating and digesting four times as much for the same effect as another could with the best hay and meal. This is the most important point to know and consider, because it explains very clearly why clover is so beneficial to soils, and why a farmer, by plowing in a clover sod, can grow a good crop of corn and another of oats, and still leave a remainder for the following small grain crop; or why, after a clover sod plowed in, in the summer, he can grow a very much larger crop of wheat than he could in any other way. And this increase of fertility is not exhaustive to the soil in any sense, because it is brought from a hitherto unexplored portion of it, that is inaccessible to any other plant.

**What Breed.**

Prof. Cook, of the Agricultural College, in an recent lecture enumerated the merits of different breeds as follows:

From all I could learn after a careful study of the subject, I decided that both meat and eggs no variety ranked higher than the Light Brahma, while for eggs the Brown Leghorns were perhaps first. For experiment I wished varieties as diverse as possible, and secured them in the above breeds. The color and size of the eggs, and the appearance, habit and temperament of the fowls are indeed very wide apart. With the Light Brahmans we have not been disappointed. They have proved even better layers in winter than our Brown Leghorns, their eggs finer in quality, larger and of rich color. At the age of six months the cockerels weigh seven and eight pounds, and while they may not quite equal the Games, the Dorkings, and the Houdans for table use, I am sure no one will go away hungry or dissatisfied from a dinner graced by a Light Brahma. From my own experience, as also from a thorough study of the opinions of others, I think there is now few that equal the Light Brahma for the farmer. Possibly the Plymouth Rock may rank nearly as high. The quiet temperament, too, is a recommendation of no mean rank in favor of these fowls. The chief objection, and the only one, so far as I know, is the proclivity of this breed to sit. With suitable methods to break this determination, it is no serious objection.

The Brown Leghorns I have found to be perfect non-sitters. They are admirable layers except in cold weather—perhap my house is not warm enough for them—when I have found them much inferior to the Light Brahmans. The eggs

are white, large and fine. The Leghorns mature quickly, when they weigh three or four pounds, and are, I think, almost useless for table use. They are wild and intractable. A fence five feet high is Brahma proof. As much cannot be said of one or three times as high if the word Brahma be replaced by Leghorn. I can not recommend the Brown Leghorns, though I have a flock for sale. From my reading and a slight experience, I think I might almost say as much of the Spanish, the Hamburgs, and the White Leghorns. Though I am satisfied with the Light Brahmans, I have a desire to test the Games, because of their incomparable excellence for table use, and the Plymouth Rock which are so highly recommended by those who have them. Yet I feel assured that this test, which I am to make in the coming years, will only serve to make me more a friend of the Light Brahmans. The grace and symmetry of the mature Light Brahma is fully comparable to that of our best-bred Short-horns, while their color forms a beautiful contrast to the green of the summer land-scape."

**Agricultural Items.**

OVER \$5,000 worth of the choicest butter

from Wisconsin, Iowa, Illinois, Indiana, Ohio,

and Missouri, was brought for competition in the dairy department at the St. Louis Exposition just closed.

You will find by testing your cows that you

will probably have one or more that do not

pay for the food they consume and the atten-

tion bestowed. Weed out

November 18, 1884.

**Horticultural.****Quince Culture.**

T. T. Lyon, in *Green's Fruit Grower*, gives us the following information in regard to the culture of the quince and the best methods of propagation:

"The more common mode of propagation is by layers or cuttings; but commercial propagators frequently plant stools in very rich soil, cutting them back to near the ground, and encouraging the growth of numerous shoots the first year. The next year rich earth is filled in a few inches deep among and about the clump of young shoots, which during the next summer become well rooted plants, and are, in autumn or the following spring, cut away from the parent stool, and may be at once planted in orchard, or grown a year in nursery rows to acquire a large size.

"This fruit grows naturally in rather moist soil-sills; often along streams of water. Although it is frequently planted with some success in light soils, it will, however, be found most satisfactory in a moist, strong, clay loam. In such a soil we have found it, under good cultivation, with the soil well manured, enormously productive. Under neglect and starvation the trees soon become stunted and unproductive; when they are very liable to be attacked by the flat headed apple borer, generally with fatal effect.

"About ten feet apart each way in a sufficient distance for the largest trees we have ever seen in this State. The tree has a tendency to produce suckers from its base. These should be persistently removed and the tree grown with a single trunk, from one to one and a half feet high, with little pruning, beyond the removal of crossing branches.

"The bowers are less likely to attack vigorous trees. For this reason it is especially important that they be not permitted to suffer a check in growth. Even however, in the case of the quince should not be relied on, but in May or June, and perhaps again later in the season, the trunks should be well washed with lye or strong soap suds to repel their attacks and destroy the eggs if already deposited.

"As already remarked, the soil should be kept rich; and thorough cultivation should be kept up till about the middle of August, when it should cease for the season, that the young growth may become well ripened before the advent of severe winter. After the roots have taken possession of the soil between the rows, cultivation should be shallow, and it will be preferable to plow toward the rows, so that considerable hillock shall be maintained about the tree, thus keeping the tree well protected against winter exposure.

"Planting must depend greatly upon the exposure and the nature of the soil. In a dry situation, or on ground liable to standing water, at any season, we would plant it in spring. If sheltered from the coldest winds, and with sufficient drainage, early autumn will be preferable, as the roots will be prepared for an earlier start in spring.

"The Apple or Orange quince is the only variety that can yet be recommended for general market planting, and is, in fact, the only one offered in our markets.

"Rea's Mammoth is a comparatively new variety, said to be much larger than the apple. Our experience with it indicates that it may be later in ripening and little, if any, larger. The plant is less vigorous and a much earlier bearer.

"It is not the top but the root of the quince tree that is tender. Of course the top wholly or partially dies, according to the amount of injury to the root, no the root. We can see this by noting the greater degree of injury in high, dry, cultivated soil, than in low, moist places, where the ground is covered by snow or where a grass turf affords protection to the roots. Under a neglectful system, where no proper means are provided for covering the roots in winter, this fruit will do better than any other to be left in grass. It is not the best management even for the quince, but grass will at least prevent that freezing of the soil so sure to follow where no protection is provided.

"To ship to a commission firm just means this: That, upon arrival in Liverpool or Glasgow, the fruit is transferred to a large storeroom, opened and examined, an auctioneer is called in who sells them by the hundred or more barrels of choice, and the highest bidder who happens to be quick enough to get in a bid, for these auctioneers do not dwell a moment to get a higher purchaser, and hence the result may be either loss or gain to the shipper. Or the commission firm may dispose of them by private sale, in lots, if they are not pressed for storeroom for incoming cargoes, in which case the results are likely to average better. It is better, therefore, for the grower to take the best obtainable price at home unless he can go with the cargo. Those who wish to test this matter should be careful of the following points: Have all the apples hand-picked and laid upon the ground under the trees for a week or ten days to sweat and toughen the skin. Then sort over these, taking out any spotted or wormy specimens that may have escaped the eyes of the pickers, and proceed to pack by placing the first layer with stems down and the next with blossom-end down, after which they can be put in with baskets, shaking the barrel after every two baskets until it is filled sufficiently to pack and press solid. This has to be judged of according to the variety, as some will press down more than others in order to carry solid. In packing it will pay to have apples sorted according to size and color, and the barrel branded accordingly. When the barrel is pressed and closed securely turn it end for end and brand it, so that when opened the fruit will be seen to advantage with stems up. And be sure and have them named correctly. If you have a hundred barrels of King of Tompkins County named Cayuga Red Streak, as I have seen often, you will only get the price of the latter variety or the cul price, whereas, if they are correctly named, you get

some of the less valuable trees, like gray birches, are easily distributed over such tracts.

"There is a common belief in a rotation of hard and soft wood trees, and that one always follows the other naturally. There but little foundation in fact for this belief. This rotation often occurs and is effected in two ways. In one way, by removing either of the varieties from a tract of land which is afterwards seeded by trees of the other variety that happen to be more favorably situated for doing it. (In this way it is quite easy for a farmer to change the character of his forests, if, when removing them, he leaves such trees standing to reseed the land as he prefers for a subsequent growth.) In the other way the rotation is caused by live stock. Cattle, sheep, horses and goats eat most all varieties of young deciduous trees, and would prevent their growing when suffered to roam at large over forest land.

"If live stock is left out of the question this may be given as a rule for the natural seedling of forests: Land from which a forest has been removed is reseeded by trees which are most favorably situated for furnishing the seed, unless it has been done with seed matured in the forest immediately before its removal—the wind being the chief agent (though not the only one) in sowing the seed. It was estimated that not less than 1,000 tons were grown in the neighborhood. At first good prices were realized. *Gardening Illustrated* has this to say of the culture of the strawberry on these large fruit farms, which will show with what thoroughness they go into it, and also that the crop must be enormous. It is amusing to read of 75 miles distance standing in the way of cost in shipping. Every item is taken advantage of there, and fruit raising is made a business:

"The cultivation of such extensive tracts affords employment for large numbers of laborers, for there is always something to do in a strawberry garden. Before planting, the land must be thoroughly cleaned and deeply cultivated. A good depth of light friable soil, into which the roots can strike down freely, is the best anti-dote against drought; and although land hereabout is very stony and naturally poor, it is surprising how healthy and vigorous the plants keep and what crops they bear. Strawberries on stiff soil could not produce better results than do these tracts of well-nigh barren heath land. A gravelly soil suits the strawberry well. The soil at out here is what is left in the habit of being unlike some other varieties of the pine family.

"In some years the matured cones in a white pine forest are very abundant; in other years there are scarcely any to be found. Therefore a forest which is cut down in the year when the cones are abundant is renewed at once, but if cut in a year when there are none or few to be found, the natural reseeding is either protracted or at least doubtful. Yet it could have been effected if a sufficient number of seed-bearing trees (the number required depending upon their size) had been left standing to reseed the land; and after it has been done these trees can be removed with benefit to the young growth, for young trees require the same advantages of air and sunshine as Indian corn and grow much faster under full exposure than in the shade."

**Preparing Apples for Shipment to England.**

A correspondent of the *Canadian Horticulturist* gives some points to those who desire to pack apples for shipment to England:

"After an experience of several years in dealing with the markets of the chief cities of Britain, I advise growers to sell as best they can to purchasers at home who are exporting, or dispose of the crop in the nearest market for home consumption. If, however, a grower has say a thousand or more barrels of very choice, it will pay any year to ship to Liverpool and accompany the cargo, disposing of them in that city in bulk or shipping to London or Glasgow. In this case it is necessary to place them in a storehouse and open the top of a number of barrels of each kind for inspection.

"To ship to a commission firm just means this: That, upon arrival in Liverpool or Glasgow, the fruit is transferred to a large storeroom, opened and examined, an auctioneer is called in who sells them by the hundred or more barrels to the highest bidder who happens to be quick enough to get in a bid, for these auctioneers do not dwell a moment to get a higher purchaser, and hence the result may be either loss or gain to the shipper. Or the commission firm may dispose of them by private sale, in lots, if they are not pressed for storeroom for incoming cargoes, in which case the results are likely to average better. It is better, therefore, for the grower to take the best obtainable price at home unless he can go with the cargo. Those who wish to test this matter should be careful of the following points: Have all the apples hand-picked and laid upon the ground under the trees for a week or ten days to sweat and toughen the skin. Then sort over these, taking out any spotted or wormy specimens that may have escaped the eyes of the pickers, and proceed to pack by placing the first layer with stems down and the next with blossom-end down, after which they can be put in with baskets, shaking the barrel after every two baskets until it is filled sufficiently to pack and press solid. This has to be judged of according to the variety, as some will press down more than others in order to carry solid. In packing it will pay to have apples sorted according to size and color, and the barrel branded accordingly. When the barrel is pressed and closed securely turn it end for end and brand it, so that when opened the fruit will be seen to advantage with stems up. And be sure and have them named correctly. If you have a hundred barrels of King of Tompkins County named Cayuga Red Streak, as I have seen often, you will only get the price of the latter variety or the cul price, whereas, if they are correctly named, you get

"Salt has been recommended as a specific for the quince. It is undoubtedly helpful, but it owes its good effect more to its influence in keeping the soil moist and preventing its deep freezing than to any inherent manorial properties. There are undoubtedly times when salt is absolutely hurtful to quince trees, as when it is applied in large quantities after deep cultivation, which has broken, torn, and bruised the tender roots. Of the mineral manures, potash, in the form of wood ashes, leached or unleashed, we have found most beneficial."

**How Farmers May Aid Nature in Seeding Forests.**

The natural seeding of forests is the subject of a paper by John E. Hobbs, North Berwick, Me., and reported in the forestry bulletin devoted to the interests of the Forestry Congress. In this paper the following:

"Nature is prolific in providing seeds for the renewal of all trees and plants, but the natural, unaided, quickly sow the seeds of the better kinds of timber trees over large tracts of land that have been stripped of all seed-bearing trees, though

the price of that variety according to your sample. It will not pay to send inferior fruit in quality to Britain now, even though high colored, as Britshers are beginning to know a little something about quality in an apple. As a rule they prefer high-colored fruit, but that, so far as it has been a prejudice, will soon give place entirely to intrinsic value in quality, and hence the R. I. Greening, which has been down low in that market, is coming to the front. Give me a cargo of choice apples, leading varieties, such as Russets, Baldwins, Spies, King Tompkins County, R. I. Greening, Ribston Pippin, Blenheim Pippin, Wagner, Ontario, Macon, etc., all well selected and packed, and I care not how the British market may be flooded with apples from other countries I can afford to pay a figure, and am sure of a higher price than any other country can demand, because our apples, especially from the central and northern belt of Ontario, are superior in point of quality to any in the world, and British as well as other consumers are becoming aware of this."

**Strawberry Culture in England.**

In South Hants, about 73 miles from London, from the Farham and Botley stations, 816 tons of strawberries were last year shipped by rail, but prices became so low (one shilling per gallon) that it did not pay, and they were sold in the near villages. It was estimated that not less than 1,000 tons were grown in the neighborhood. At first good prices were realized. *Gardening Illustrated* has this to say of the culture of the strawberry on these large fruit farms, which will show with what thoroughness they go into it, and also that the crop must be enormous. It is amusing to read of 75 miles distance standing in the way of cost in shipping. Every item is taken advantage of there, and fruit raising is made a business:

"To get plenty of blossoms it is necessary to have the pots well filled with roots. When potting plants, the smaller pots can be put into the better ones to do generally. In lifting plants it is often the practice to reduce the ball of earth with the plant by crumpling the soil around the sides. This destroys the roots to such an extent that the feeding portions of them are completely mutilated, and, as consequence, fresh roots have to start out all over the leading roots before any food can be supplied to support the evaporation rapidly going on from the leaves and stems, especially in very succulent growing kinds. The main secret in lifting plants from the ground, and having them do well afterwards, is by preventing them from wilting too much. This can only be done by preserving all the roots possible, and reducing the leaf surface to correspond. Many people ask me how I am going to accomplish this with such kinds as chrysanthemums, which have their flower buds all formed on the points of the shoots, without destroying the flower. By simply shaking the soil from the roots, instead of breaking it off, roots and all. If the soil is of a loose nature, and neither wet nor dry, it is cleaned without injuring them much.

"When potting, gently and evenly spread the roots with the soil, press firmly, and thoroughly water. To remove the superabundant leaf-surface, take off a good many of the large leaves near the base of the stems, and there is no need for breaking any of the shoots at all. When geraniums and chrysanthemums this is most applicable, as to cut the shoots back much, of those kinds wanted for winter flowering, is to take the principal part of them away. All the buds on geraniums, when lifted, will open beautifully in which I have not entirely lost faith.

**Horticultural Notes.**

**Hedges** of the barberry ten or a dozen years old are about eight feet in height, and covered with prickles—beautiful in appearance and detested by all manner of four-footed beasts—not inclined to spread, but thickening up from the roots something like the currant, only somewhat thicker, bearing a beautiful red berry in the fall, and never known to winter kill.

**The American Cultivator** says: "Among some poor growers it is deemed advisable to train up several trunks to the tree, and to let a number of smaller sprouts grow about them to act as screens. If one top is killed with blight, it may be cut out, and the others will remain. Such trees are not ornamental, but they are sure to withstand the blight."

A curious fact stated about the locust, which is unmistakably true is this: However large the tree, or however thickly they may stand, the grass beneath always thrives under them better than under any other tree. This is partly owing to the lightness and thinness of their delicate foliage, and partly to the fact that the foliage, being small, does not blow away, but lodges in the grass and decays there, thus affording nourishment to the roots of the grass. A patch of locusts on a barrow, a gravelly knoll will not only furnish a supply of roots, but will improve the pasturage wonderfully.

A MEMBER of the Maine Horticultural Society has found that out of hundreds of apple trees which he raised from the seeds of good sorts, not one in five hundred was worth propagating, so strong was the tendency to run back, and the finest not to survive. He found no difficulty in destroying bark lice with strong soap suds about the middle of June, at a time when the shell is loose and the alkali readily penetrates it and destroys the insects beneath. He had often examined with a microscope the lady bug destroying the lice, proceeding from shell to shell and sucking out the contents.

If trees are not provided with proper and full nutriment in the soil, not receiving the full amount of requisite plant food, they cannot produce well, no more than can a laborer do a proper day's work on an insufficient diet. Fertilizers are not a cure all, but they are most important and necessary, and the best of all for general purposes, and general use is potash for the earth.

"Gathering the crop is performed by men, women and children; in the height of the season all hands procurable are pressed into the service. The earliest and finest fruit is packed in punnets, the picking being done at so much per dozen punnets; the latter are then packed in large boxes or hampers and sent off by rail to salesmen. In some seasons very remunerative prices are realized; a crop of from three tons to five tons per acre when prices are high gives a large profit to the growers, nearly \$500 per acre being realized in this way in some years. But when the crop is over the average, it does not pay to send any but the earliest fruit to London, as the long railway journey swallows up too much of the profits. This year from one farthing to a halfpenny per punnet was all that many growers cleared for punnets of very fine fruit, and from this, rent, rates, labor, etc., have to be deducted. When prices are low, punnets are put aside, and the fruit is gathered and sold by measure or weight for preserving.

TOBACCO raisers and producers of other plants whose dried and cured leaves are of value in the market, will be interested in the latest explanation of the cause of the brown discolorations—spots of small diameter, in which the tissue is nearly destroyed—that so often impair the value of their products. It appears that raindrops, after a shower of a hot summer day, act condensing prisms to the nearly vertical beams of the sun, concentrating the rays upon the surface of the leaf just beneath the center of the drop, and thus producing a burnt spot of diameter corresponding with that of the drop itself and of depth proportionate to the intensity of the heat.

**Over Culture.**

It is possible, says the *American Cultivator*, to give fruit trees too high culture. One who is enthusiastic in fruit growing and who has but a small orchard is very apt to cultivate and manure too much. We have known of persons who were continually adding to their orchards phosphates, carbonate of lime, muck and barnyard manure in abundance. If too much medicine can be given to a patient, just as readily can too much manure be given to an orchard. Judicious cultivation is always to be commended, but just what judicious cultivation is cannot be expressed in print. Judicious cultivation for one orchard may be redundant or insufficient cultivation for another. The judgment of the grower must decide in such matters. A system of cultivation which keeps the ground in as good heart and as good tilth as a good farmer would keep his corn field or his wheat field is good enough for the orchard. Whether the orchard should be seeded down will depend much upon the thriftiness of the trees and upon the fertilizers at the command of the grower. If the trees are not healthy and vigorous, do not send them down. An orchard should not be long kept in sod unless dressings of stable manure or other fertilizers can be applied every year or two.

**Lifting Pot Plants.**

Mr. Milton in the *Country Gentleman* says:

"To get plenty of blossoms it is necessary to have the pots well filled with roots. When potting plants, the smaller pots can be put into the better ones to do generally. In lifting plants it is often the practice to reduce the ball of earth with the plant by crumpling the soil around the sides. This destroys the roots to such an extent that the feeding portions of them are completely mutilated, and, as consequence, fresh roots have to start out all over the leading roots before any food can be supplied to support the evaporation rapidly going on from the leaves and stems, especially in very succulent growing kinds. The main secret in lifting plants from the ground, and having them do well afterwards, is by preventing them from wilting too much. This can only be done by preserving all the roots possible, and reducing the leaf surface to correspond. Many people ask me how I am going to accomplish this with such kinds as chrysanthemums, which have their flower buds all formed on the points of the shoots, without destroying the flower. By simply shaking the soil from the roots, instead of breaking it off, roots and all. If the soil is of a loose nature, and neither wet nor dry, it is cleaned without injuring them much.

James Heddon: When bees are kept, honey producing plants are more perfectly fertilized; hence, where bees are kept, honey plants will increase; but I do not think that it will pay to raise plants for honey alone.

Dr. Miller: I have tried an acre of figs.

James Heddon: I kept it carefully cultivated one year, the plants thrived finely, and the bees worked upon it almost incessantly, but the use of the land and the cultivation is too expensive. The next year I dropped the cultivation, and the plants dwindled, and, comparatively, amounted to but little. I sowed 20 acres to sweet clover, but it did not come up so well as I could have wished, and various causes have prevented it from attaining the proper growth. If the seed is sown along the edge of the waggon-track, just at the line where the grass begins, it will come up well, but it does not germinate and grow when sown upon a pasture. However, sweet clover is the one plant in which I have not entirely lost faith.

**Reversible Frames.**

James Heddon said at the recent meeting of the Northwestern Bee Keepers' Society:

"I have used, in the present season, two or three thousand reversible frames, but it will require at least another season to decide many points in regard to them. Of one thing I feel certain, and that is, that one reversal will pay for the extra cost in the solid frame of comb thus secured. This point is settled; reversals will induce the bees to attach the comb to the bottom. Then there is the question of reversal of sections; if done at the proper time, it secures their compaction and attachment to the bottom bar, which is now the top bar of the sections. In the first report of the season, the queen and bees are inclined to fill the brood combs with brood and store the honey above in the sections; if then the brood combs are reversed, the bees will carry up the honey and fill the combs with brood, thus securing more brood and stronger colonies in smaller hives, and the honey in the sections. If the sections are reversed during the honey flow, it will secure their completion. As the season draws to a close, breeding is carried on less extensively, and the bees are inclined to carry the honey into the brood combs; to reverse now would only hasten the operation of bringing the honey down from the sections and storing it in the brood combs.

The hair is frequently rendered prematurely gray by care, grief, delicate health, loss of spirits, or a depressed tone of the vital powers. The use of Hall's Vegetable Sicilian Hair Renewer will restore its health and beauty.

**NEW ADVERTISEMENTS.****Catarrh**

Is undoubtedly caused by impure blood. Hence a medicine which purifies the blood removes the cause of the disease and opens the way for a thorough cure. This is exactly what Hood's Sarsaparilla does, and it makes the hood's sarsaparilla the only complete and safe remedy for catarrh.

A C. W. Dorr, Manager Racine Seeder Company, 243 Fourth St., Des Moines, Iowa.

**Catarrh**

Is permanently cured by Hood's Sarsaparilla. Mr. A. Ball, Syracuse, N. Y., says: "Hood's Sarsaparilla has helped me more for catarrh and impure blood than anything I ever used."

"I have taken Hood's Sarsaparilla for catarrh, and think it has done me a great deal of good. I recommend it to all within my reach. Hood's Sarsaparilla has been worth everything to me." LUTHER D. ROBERTS, East Thompson, Conn.

**Catarrh**</

# MICHIGAN FARMER

—AND—  
State Journal of Agriculture.

A Weekly Newspaper devoted to the industrial and producing interests of Michigan.

OFFICE OF PUBLICATION:

44 Larned Street, West, (Post and Tribune Building), Detroit, Mich.

JOHNSTONE & GIBBONS Publishers.

P. B. BROMFIELD,  
Manager of Eastern Office,  
21 Park Row, New York.

## The Michigan Farmer

—AND—  
State Journal of Agriculture.

DETROIT, TUESDAY, NOV. 18, 1884.

WHEAT.

The receipts of wheat in this market the past week amounted to 119,017 bu., against 131,564 bu. the previous week and 111,457 bu. for corresponding week in 1883. Shipments for the week were 210,465 bu. The stocks of wheat now held in this city amount to 406,666 bu., against 577,837 last week, and 265,198 bu. for the corresponding week in 1883. The visible supply of this grain on November 8 was 35,594,729 bu. against 34,301,533 the previous week, and 30,775,446 bu. at corresponding date in 1883. This shows an increase over the amount in sight the previous week of 1,293,191 bu. The export clearances for Europe for the week ending November 8 were 1,093,281 bu., against 1,374,174 the previous week, and for the last eight weeks they were 8,613,052 bu. against 7,532,839 for the corresponding eight weeks in 1883.

Wheat has developed no features of special importance the past week. Markets have ruled quiet and dull, with occasional demands for spot that impeded a little animation to the trade. On the whole trade has ruled light, with prices steady about the range of a week ago.

Shipments have exceeded the receipts. Sales for the week were only 400 cars of spot and 350,000 bu. of futures. Yesterday this market opened under Saturday's closing figures, ruled bearish all day, and closed with prices below the range at the opening. The sales of spot were 102 carloads, and of futures 120,000 bu.

The Chicago market was weak and lower, closing about 4¢ under Saturday's figures. No. 2 red closed it 73½¢, and No. 3 do. at 60¢ per bu. Toledo was weak and lower, with No. 2 red spot and November deliveries at 67¢, December at 67½¢, and January at 70¢ per bu.

The following table exhibits the daily closing prices of wheat from Nov. 1st to Nov. 17th:

	No. 1	No. 2	No. 3	white, red.	red.	No. 3
Nov. 1	77½	78½	80½	66½		
2	77½	78½	81	66		
3	77½	78½	81½	66½		
4	77½	78½	81½	66½		
5	77½	78½	81½	66½		
6	77½	78½	81½	66½		
7	78	78½	81	65½		
8	78	78½	81	65½		
9	78	78½	81	65½		
10	78	78½	81	65½		
11	77½	78½	81½	65½		
12	77½	78½	81½	65½		
13	77½	78½	81½	65½		
14	77½	78½	81½	65½		
15	77½	78½	81½	65½		
16	77½	78½	81½	65½		
17	77	78½	81½	65½		
Total, Nov. 1.				6,750		
Total previous week.				6,904,555		
Total two weeks ago.				7,008,889		
Total Nov. 3, 1883.				13,385,705		

The following statement gives the closing figures on No. 1 white each day of the past week for the various deals:

	Nov.	Dec.	Jan.
Tuesday	77½	78½	78½
Wednesday	77½	78½	78½
Thursday	77½	78½	78½
Friday	78	78½	79
Saturday	78	78½	79
Monday	77½	78½	78½
	77	78½	78½

The following statement shows the amount of wheat in sight at the dates given this season as compared with last year:

	Visible supply in U. S. and Can.	On passage for United Kingdom	On passage for Europe
Tuesday	34,301,538		
Wednesday	15,008,000		
Thursday	15,008,000		
Friday	15,008,000		
Saturday	15,008,000		
Monday	15,008,000		
Total, Oct. 25.	52,092,538		
Total previous week.	50,117,988		
Total two weeks ago.	46,722,310		
Total Nov. 3, 1883.	50,377,678		

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Saturday	15,008,000		
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The following statement shows the amount of wheat in sight at the dates given this season as compared with last year:

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Machine.  
BRANT, NOV. 8, 1884.

washing and deliberate commenced discharging his revolver at her. She fell dead at the second fire. The attack was entirely unprovoked.

There is an old woman in Boston, the widow of a French marshal, who now grins a half dozen of her husband's medals. She is said to speak the pure French to be heard in the Hub, and her face resembles an English walnut.

The boy of Ben Shuter, of Berea, Ohio, was found on the broad track on the 14th terribly mangled. There is evidence that the deceased was murdered, robbed, and his body then placed on the track to convey the impression that he was killed by the cars.

Louis Shaff, while refitting his shoe store at Brooklyn, employed a Frenchman and a lad of 12 to help him. They slept in the store, and one morning of the 14th all three were found dead when the workmen came. Death was caused by escaping gas from a defective pipe.

A passenger train on a Texas railway went down an embankment on the 14th inst., at a point 35 miles north of Houston. Eight persons were killed and 17 wounded. The accident was caused by train wreckers, who removed several rails. Hanging is too good for such wrechers.

The steamer Scotland arrived at Quebec from London last week, with smallpox on board. There were 15 cases of smallpox, and these numbered 100 on board, and broke into the stores and appropriating the liquors. The ring-leaders were arrested and will have a taste of American justice.

Deputies of Commissioner of Pensions report that last year there were 322,756 pensioners of the war of 1812. The amount paid for pensions during the year was \$50,636. Since 1861 927,922 claims have been filed, and 545,130 allowed.

A serious fight occurred at Utica, N.Y., between Indians and white men. As usual the fire-works of religion was at the bottom of the trouble. Two drunken Indians started a quarrel with two white men with pistols, and were nearly killed by the culprits. A general melee followed, and the Indians threatened revenge.

A passenger train on the Colorado Central stopped near Denver on the 13th, and two coaches dragged on the track till they were completely wrecked. Of the 38 passengers were 10 less injured, but none fatally. Four were seriously hurt. Too high a rate of speed while turning a sharp curve is supposed to have caused the accident.

A. J. Rumppel & Co.'s nitro-glycerine factory from Toledo, exploded on the 31st. Four men were at work in the factory, and singularly enough none were killed though all were more or less injured. The shock of the explosion was felt in Toledo. The glass shattered in the windows, and also at Perryville, five miles away, where glass was broken and the walls of the schoolhouse shaken down.

Upon the shop works at Peabody, Mass., caught fire from overheated boilers, at the 14th, and the buildings, covering an area of five acres, were totally destroyed. The loss approaches closely to \$100,000. The works manufactured four or five tons of glue weekly, and its business amounted to about \$60,000 per year. One hundred men are out of employment. He is held for trial.

At La Crosse, Wis., last week, Margaret Ecker, a servant girl, called at the house of C. E. Miller, who was at home. She entered, closed the back door, and then went to the front of the house. Mr. Bunn heard her at the door, and supposing her to be a burglar fired, killing her instantly. Burglars have lately been very numerous, and Mr. Bunn was for this reason unusually suspicious.

Several weeks ago John Downey and his wife, of Windsor, being poor and destitute and unable to obtain employment, agreed to come together by drawings, together. Mr. Downey carried out her part of the programme until John's courage failed him. He was arrested on suspicion of having murdered his wife, but released when the circumstances were explained. But on the 14th John fulfilled his part of the contract, and was found hanging in a barn at Windsor, and was found hanging in a barn at Windsor, dead.

It is now said that the civil service law, as it applies to civil servants, will be enforced. It is reported that the civil service law is in full force, and that men and women have gotten into the Government's employ through the civil service, and that they are incompetent to fill the positions they occupy, although their examination papers indicated a degree of efficiency which would entitle them to be considered very efficient. Under the civil service law these clerks have sufficient ability to keep their places.

**Foreign.**

A report is current that General Gordon was shot dead while passing from Khartoum to Berber.

A dispatch received at London last week announces that the French have occupied Tamsui, in Formosa.

The English government will have to go down into its pockets for another million of pounds to carry on the campaign in Egypt.

People are leaving Paris in great numbers in consequence of a violent outbreak of cholera there. The disease is epidemic in the poorer and most filthy quarters of the city.

The British ship Thermera collided with the ship Andrew Johnson, the latter sinking with 17 of her crew. The Thermera was so badly damaged that it was found necessary to put into Pernambuco, South America, for repairs.

Dutch Colonial banks are in trouble owing to a great depression in the sunken state. Shares of the Dutch East Indies were fallen 10 to 15 per cent. Efforts are being made to prevent a financial crisis through the closing of the sugar factories connected with the banks.

The British Government has sanctioned the expenditure of \$2,320,000 for the speedy manufacture of the latest pattern of breech-loading ordnance and \$2,085,000 for works and armaments of defense at Ouden, Ceylon, Singapore, Hong Kong, Simon's Bay, Sierra Leone, St. Helena, Mauritius, Jamaica and St. Lucia.

**TWIN BROTHERS DRY HOP YEAST.**

COLORADO RIVER AGENCY, November 6th, 1884.

Messrs. Twin Brothers:

GENTLEMEN—Having noticed the name of your Celebrated Dry Hop Yeast, said to be suitable for all climates, I sent for a package on trial, and although not one-half of it has been used, yet it has given such a wonderful degree of satisfaction to all the employees of my agency and the schools as well, that it affords me pleasure in giving testimony to its great value and purity, which certainly cannot be excelled by any other preparation known for producing clear, pale and sweet bread, such as I have not been able to produce from any other method.

If this notice is of any value to you, you can use it for the public good in giving facts of your valuable preparation. Remaining yours specifically,

JOHN W. CLARK,  
T. S. Indian Agent for the Colorado River  
people, embracing the Mohaves, Chinchevas  
and Yumas tribes, numbering about 3,000.

Watson Yeast Company, T. W. Filer, Manager,  
22 Michigan Avenue, Detroit, Mich.

That Sewing Machine.

BRANT, NOV. 8, 1884.

Messrs. Jobstons & Gibbons:

The sewing machine I ordered some time ago arrived in due time and in good order. Have not used it much till lately, and I think it the best in the market. It gives entire satisfaction, and it is as nicely finished as those agents here are asking \$45 and \$50 for. I would recommend it to all who are in want of a good machine. Yours with respect,

MRS. J. DYGERT.

#### NEW ADVERTISEMENTS.

#### NEW ADVERTISEMENTS.

**ENTERPRISE MANUFACTURING CO.**  
Third and Dauphin Sts., Philadelphia, Pa.

ATTENTION FARMERS!

NEW MEAT-CHOPPER

RAPID CLEAN

FOR CHOPPING  
SAusage, Meat, Fish, Ham, Hams, Salts, Sauces,  
Scrap, Cuts, Vegetables, &c.

VALUABLE BOOK-KEEPER, FREE, WITH EVERY CHOPPER.

CAPACITY  
No. 10, 10 lbs. per minute.  
No. 20, 20 lbs.  
No. 30, 30 lbs.  
No. 40, 40 lbs.  
No. 50, 50 lbs.  
No. 60, 60 lbs.  
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## Poetry

## WOULD WE BE WILLING.

Would we be willing, if the summons came,  
To countermarch this life, to live the same  
Once more?  
Say pain and joy, and poverty and wealth,  
Good days and dark days, illness and good health,  
Lived o'er?

The new one just as the old one had been;  
To had like friend and the wiser met,  
As yesterday?  
And would it pay? Life, a play,  
Is relished as we go from day to day—  
But stay!

Not many a play is worthy of recall:  
The actors out by one come on, and curtains fall:

They go away;

And shifting scenes, to music long and drear  
Gates on the lister's weary ear.

We dread the play!

And so, as children tire of toys and sleep,  
At close of life, comes less and less to keep  
Us here always.

And then so many have gone before,  
And carried bright hopes to a brighter shore,  
Are saying, Come!

Those absent long, wit' anxious gaze,  
Leading and lighting all the darkest ways  
Would call us home.

Would we be willing to refuse their prayer?  
Ah, no! Some day we'll greet them there—  
Some ay!

## A VIGIL.

All Souls' Day! Where have I heard or read  
An old-time legend, sad and sweet,  
That to-night return the remembered dead  
And walk among us with shadowy feet?

The watcher heeds no light nor sound,  
But ill down is breaking, they're through around.  
Beloved, thou has been gone from me  
A year and a day. I will watch to-night,  
My door shall be left open for thee;

I will brighten y fire and trim my light,  
And musing softly on other days,  
Will I k' e by the midnight blaze.

Are there n't told joys in those realms above,  
With whose' means mortals may vainly cope?  
Elons i ever a sweater rose i an love?  
S'pose there a happier bird than hope?

Was the walking s' that they' rean foretold  
Of palm and palace and gates of gold?  
Then didst love me tru'y, I doubt it not,  
To part was bitter though silent pain;

In the off-rail road I yet forgot  
To mournin' empty and memory vain?

Hark! was that a whisper, so so, so, so near?

It is but the aling wind I hear.

Surely one moment she stooped to see  
The ligation my heart, and her glance was kind;  
Each scene - vied from our slat mut-t be,  
The dea - are - o' fatalities, though we are blind.

In the light of the aunc-ding love  
We watch below, and they watch above.

## Miscellaneous.

## THE FIREMAN.

## AN IDYL OF THE ROAD.

Two o'clock on a February afternoon, on the northern confines of the Mojave desert. The Southern train like some huge, fire-eyed serpent, trailed its human length northward. The passengers looked wearily out of the car window, upon a monochromatic picture, in dull tones of gray, the heavy leaden hues extending even to the distance hills which bordered the horizon and the brooding sky above. Three hundred miles farther south the very isolation and sterility of the great desert waste invests the region with a charm all its own, and imparts a peculiar interest to each bit of rock, sprig of vegetation, or rare token of animal life.

On the Mojave the traveller is oppressed with the sense of the hopelessly commonplace. The level and sterile ground, lying in close proximity to productive and fertile districts, the ranks of tall cacti, filling in endless succession at all angles from his line of vision, the scanty vegetation of wiry grasses, which only serve to accentuate the poverty of the soil, and the occasional dusty roads, circling about like aimless wanderers, weigh down upon the helpless mediocrity of an individual to whose society he is condemned.

Were any element needed to emphasize the forlorn situation, it was supplied in the abortive attempt at a town, where the train slowly drew to a stand. In the rear of the long railroad warehouse, and a hundred yards across a stretch of gray sand, which repeated in its dull neutral tints the prevailing tone of the landscape for miles around, a row of pretentious business houses had been marshalled into existence, and gazed forth upon the world in painful vacuity of purpose; yet in their dismal fronts and empty, staring windows, lurked a suggestion of guilt, like human beings who are conscious of having missed their destiny; and various aggressive signs flaunted before shuttered windows and barricaded doors, helped to deepen the impression.

The Pullman conductor, blandly apologetic, mildly sympathetic, advanced through the car, stopping for a few words at each section. Behind him came the conductor of the train, lofty and inexorable. A new washout had occurred fifty miles further on, and the train had orders to stop at Mojave until the road was repaired.

The passengers looked out upon the town with newly acquired personal interest, and smiled grimly at its cheerful aspect. A group of lowly cabins would have seemed more in accord with the scene, and offered some suggestion of lowly comfort; but the double row of showy modern buildings struck a sharp discord in the melancholy waste, like the tinkling notes of a fashionable waltz sounded in the midst of a funeral dirge, recalling the mind from the woes of the grave to the vain frivolities and shallow ambitions of life.

The last persons to descend from the sleeper were an elderly gentleman and a young lady, the former leaning heavily on the arm of the latter. They looked about them with the helpless air of strangers unused to travel and its attendant train of misadventures.

"If you please," the girl addressed a stout young fellow hurrying past, who followed him, making desperate effort to bring out something which obstinately hid in the depths of her pocket. As he reached the threshold she displayed a small purse of Russia leather. "You must excuse us for our negligence yesterday."

man accustomed to obey orders with unquestioning promptitude, he immediately came to a stand, and touching his cap courteously, awaited what she had to say.

"I wish you would direct us to some quiet place. My father is an invalid and cannot bear the noise and disturbance of a hotel."

His voice, though gently modulated, had in it the subtle accent of command with which a well-bred person addressed an inferior.

The man hesitated and looked away before replying. With unusual tact he appeared to grasp at once the full perplexity of the situation.

"The car is at your service, you know; but I presume that would be even worse than a hotel, with the constant switching up and down the track. As to the town, with the exception of two badly kept eating-houses it's really a dead hister. Still, there may be a chance at Granville. We'll see."

He had taken from her hands the small travelling-bag the girl was carrying, and giving the invalid the support of his arm, led the way across the stretch of sand which intervened between the railroad building and the outposts of civilization beyond. Over the young lady's face flickered a momentary smile, half amazement, half vexation, as she realized the odd companionship which she had unthinkingly invited. No question of social distinctions vexed the invalid, who was too glad to have a strong arm upon which to lean to ask the material of the stuff that covered it. A keen wind swept down from the northeast, filling their eyes with sand and cinders as they ploughed their way through the soft soil. Gaining the sidewalk at length, they passed along over successive grades and varieties of plank ing, to where restaurant sign swung lazily in the breeze. Here their guide paused, and took a brief survey of the premises through the uncurtained windows.

The long room was untenanted save by a half-dozen large tables, set out with cheap casters and stoneware, as if in expectation of coming guests, but the thick coating of dust over napery and dishes, and the festoons of cobwebs which hung from the low ceiling and had been permitted to gather undisturbed about the dreary equipment of the tables, seemed to indicate that the arrival of hungry guests had been long deferred.

If Miss Wilbur was disposed to cherish any romantic notions in regard to the curious scene, her guide was prompt to dispel them.

"Granville set up a restaurant," he explained laconically. "Busted the first week. Off to the mines and left his wife here to make out the best she can. They must have spare rooms up stairs, and she looks like a tidy body."

A sedentary woman, with two children hanging to her skirts, answered their call. Her face partook of the prevailing neutral tones of the desert, even to the dull eyes, which lacked the sunny warmth of blue and the fire and sparkle of gray. Her countenance was emblematic of her character, which having missed the dews and sunshine of ordinary existence, had relapsed to the dry, nonotonous level of the region in which it was cast. As the fireman had anticipated, she was ready to eke out her insufficient income in any honest fashion, and the travellers were soon installed in a couple of airy rooms sparsely furnished, but sufficient for their needs.

A little separate from their fellow-passengers, and remaining for the most part in their simple apartments, it happened that they were left to themselves the first twenty-four hours, and missed the genial feast of reason and flow of soul with which old travelers beguile the irksome moments of detention on the road.

On the afternoon of the second day, Miss Wilbur, answering in person a rap at the door, was surprised to see their whilom acquaintance, the train hand, standing there in respectful attitude. "May I ask after your father's health?"

"Thank you. He is feeling much the same. He cannot expect to recruit fully until our journey is ended."

She smiled as she spoke, reflecting that the rough-looking fellow made quite a respectable appearance, divested of his coarse garments and relieved of his coating of smut and soot. He accepted the smile as invitation to enter, and stepped inside the door with the easy and unconscious assurance of a man accustomed to a ready welcome in the humble homes he frequented.

Miss Wilbur stiffened perceptibly, but the invalid, who had recognized the young man's voice through the open door leading to the room in which he was seated, called out a cordial greeting, and the two men were soon engaged in a brisk conversation. The young lady beheld this proceeding with unspoken disapprobation; and seeing that the unbidden guest evinced no inclination to leave, she brought out a little writing-desk and busied herself somewhat ostentatiously with her letters. If she thought to affront the visitor by this act, she made a signal failure. When ever she lifted her eyes she found his gaze fixed upon her in secret admiration of the small head with its graceful poise, and as he caught the glance of her eyes he smiled a friendly response. As he rose to take his leave, he ventured upon a frank expression of his wishes for their welfare.

"Oh, send for him! Send at once! No matter at what price."

"It is not so much a matter of price," he returned, slowly. "We are under strict orders to remain at Mojave until the break in the road is repaired."

"The light of hope in the girl's face faded."

"Could you send a telegram to Mr. Cameron, the vice-president of the road? Do you suppose it would help?" she timidly asked, after a pause.

"You know the vice-president?" he questioned eagerly. "He is said to be a very accommodating sort of man. But I think it is late for a telegram to find him," drawing a clumsy silver time-piece from his pocket. "I believe that I myself will take the responsibility of running 'Fifty-fifth' down the road."

"Are you sure you will run to risk of

she said, hurriedly. "We could not permit you to be troubled without some remuneration," and she pressed a small piece of silver in his hand.

At this malicious reminder of the difference in their social status, the young man started visibly. He drew himself up to his full height and seemed for a moment about to spurn the business-like offering, but his better judgment or the admirable trait of civilized beings which we call prudence, won the day, and after a scarcely perceptible delay, he turned the coin over curiously in his hand, and then carelessly dropping it upon the floor, as if to satisfy himself that it had the ring of true metal, bowed low to his hostess.

"If I do, I shall ask you to intercede for me with the vice-president," he gravely replied, and quietly left the room.

Three hours later he returned, accompanied by a small, keen-eyed little man, who promptly diagnosed the case and pronounced the disease a low malarial fever, contracted in the flooded southern districts. The patient was in no immediate danger, but his sickness might be of several weeks' duration, and constant care and good nursing would be required.

"I shall feel easier in leaving you Miss Wilbur," he said, as he rose to go, "because I know that you are in good hands. Douglas will see that you have every possible attention."

"I shall not leave Mr. Wilbur until he is better," the fireman responded, with a shrug.

The young lady awoke to a sudden consciousness that certain social bounds she had been wont to revere were being, flagrantly ignored. It was time to make a sharp, decisive move, which would in sure a perfect understanding in the future.

"Mr. Douglas has been very kind, indeed," she coolly replied. "I shall take care that he is liberally paid for his trouble."

"Neither his superior manners nor his Grecian profile render him superior to certain material considerations generally valued by men of his class."

"I don't understand you, Bertha."

"It is nothing—only I tendered him the usual recognition for his services yesterday."

"And he accepted it?" The speaker seemed more astonished than disappointed.

"Took it with the most profound thanks and the remark that he felt fully repaid for his trouble by my generosity. I am not sure," continued the girl, "but that was the true object of his call this evening. I think I am beginning to acquire an insight into the character of this singular young man."

Miss Wilbur was busily putting up her writing materials as she spoke. "He is a product of California civilization. He would not be possible in the more conservative circles of the Eastern States. We shall probably see more of his type before we return home."

Silent and helpful, the fireman remained at his post. Somewhere in his nomadic existence he had acquired enough tact to recognize and comprehend the rebuff, and, although a candid admiration shone even in his eyes, his bearing toward her was that of distant respect. Occasionally she yielded to his quiet request to rest for a while, and, reclining upon the sofa, sought the bodily repose which anxiety and apprehension denied her mind, or a rare interval dropped off for a few moments of quiet slumber. Her fellow-watcher seemed alike indifferent to the singular young man.

One afternoon they detected the unmistakable tokens of a coming change. His pulse, which had hitherto leaped with the mad impetus of fever, grew slow and feeble. He ceased to toss upon the pillow, his clenched hands relaxed, and his moans became scarcely audible. Douglas hastened for restoratives, and Miss Wilbur tremblingly assisted him. A telegram was dispatched, exhorting the doctor to come upon the evening train, now due in a couple of hours. The thin coverings over the sufferer were replaced with heavy blankets, beneath the cover of which they clasped his limbs to restore the circulation of the sluggish blood, and bottles of warm water were procured in a vain effort to impart an artificial heat to his chilled limbs. In the midst of their labors a startling message came:

"Murdock called eleven miles in country. Deliver message on return."

The effect on the two men met—the doctor and the sick man, put an end to the discussion.

The fever raged for four weeks without abating. The weary watchers observed with dire foreboding that he grew weaker and weaker, and knew that a crisis was drawing near. With his advanced age and enfeebled constitution, would he survive the reaction which must inevitably follow?

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The doctor entered the room, and met the significant look on the young man's face, then listened in silence until he caught the hurried footsteps coming up the quiet street. A moment later the doctor entered the door. Both nurses arose as he approached, to await in suspense the verdict of the autocrat of life and death. As he placed his finger on the sick man's pulse, the latter awoke and met his look with an intelligent gaze.

"All right, doctor, thanks to him."

His voice was feeble, and his articulation like that of a child first learning the organs of speech.

Miss Wilbur bent forward one moment to look in the doctor's face, beseeching confirmation of the hope these words had brought, then buried her face on the pillow beside her father's, with a prayer of gratitude on her lips.

"Why don't you see to him, doctor? He needs you now."

The eyes of the convalescent had crossed the room to where Douglas sat very white about the lips, and on his face the sickly counterfeit of a smile which strong men assume when conquered for the first time by overpowering physical weakness.

"How do you account for the boom in the copper and brass busin?"

"Easy enough; we can buy cheaper."

"What makes it chea?"

"The coming in of Arizone and other western copper to compete with Lake Superior copper. The price has k'pt going down, but the demand for copper has kept pace with it. New uses are made for it every day. Formerly the lake-copper people had all their own way. They are seamless edge, planished copper kettle, extra heavy, spun from the bottom up to the breast, making a body of great strength. I sell them to the trade at \$27 a dozen. It was not long ago that one of them—indeed, one not so good as one of these—would cost alms at the price of a dozen. For a few cents more we sell them nickel plated. They are used as ornaments for parlor stoves sometimes. Here are umbrellas, tumbler warmers, cuspidores, jewelry boxes, brass m's, umbrella stands, hat racks, stove platforms, and a lot of things that could not have been made a few years ago, owing to the high price of copper. Now they are becoming articles of every day use."

In another Pearl street store were more than sixty varieties of brass plaques imitating hammered work, at prices varying from \$1.80 a dozen to \$26 a dozen. This is comparatively a new business. In another store were copper bath tubs of half a dozen patterns, basins, closet pans, boilers, pipes and copper balls for water tanks. Walking up Fulton street among the wire stores, there were copper and brass cages, wire cloth and other copper utensils sparkling in the sun."

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There is a very considerable village at Ansonia, Ct., that has grown out of the manufacture of brass and copper. The place is named after Anson G. Phelps, and at the office of the company on Cliff Street a thousand copper and brass products may be seen, from the delicate copper in ingots to the delicate chandeliers and lamps that imitate, if not excel, the drest French importations. There are tons upon tons of copper and brass in sheets, ready to be sold to manufacturers. There are copper and brass nails, and tacks, and weights, gongs, rods, wash basins, wire cloth, printers' rules, about sixty varieties of sheet brass, and as many varieties of wire, sheathing, bolts, rivets, kettles, seam, lead brass and copper tubing, boiler flues, ferules, gas fixtures, chandeliers and a thousand knick-knacks.</

## A WONDERFUL THING.

"So, John, you're done with the college, And are back on the farm once more, With your head as full of learning As a knarly apple of core. It's cost a heap to learn you all To cipher and figure and speak, And it's diff' rent work a-hoing corn From digging in Latin and Greek. So it is law or is it pills? You choose for your occupation! Or, better still, come set a down, And set up a D. D.'s station."

"Well, well, I have thought of the law, But they say it's all overdone; As for why every one knows It's the hardest work under the sun. A person's role would never fit On a man that is built like me; For how would it look on the best short stop That plays in the B. B. C.? So I'm engaged at two thousand a year, And signed the papers, too, To stand be bid and bat and catch For the club from Kalamazoo."

"Two t—on-a-dashy?" The old man stares; And it make b—d head to—ing, And he just a sense to mister aloud: "Education's a wonderful thing!" —Puck.

## The Englishman's Bath.

A Chicago tourist "doing" England writes to the *Herald* of that city concerning the incidents on shipboard and the sailors landing at Liverpool:

"On the whole we had a pleasant journey. Perhaps if there had been fewer on board we might have enjoyed it more, but 366 makes a considerable crowd, particularly when every one wants to take his bath at the same time. An Englishman always travels with a bath tub and a hot box, and it was very amusing to hear the complaints of Johnny Bull on the morning when he did not get his 'bawth.' What's wrong with you, old fellow?" I would say to Smith or Jones or Robinson. 'You don't look very well to-day,' 'Well, I should say; here is another day lost; didn't have my bawth, you know, and when a fellow hasn't had his bawth life isn't worth living, don't you know?' And for the rest of that day Smith or Jones or Robinson was a miserable man. At the same time I didn't very much pity him, because it always seems to me that an Englishman is never quite happy unless he is quite miserable. Dickens's *Mark Tapley* is no exaggeration in a country where nobody is happy unless he has grievances; and all the world knows that a Scotchman is never at home except when abroad. At the same time it did seem a little ridiculous to see a great big rosy-cheeked Hercules going round with groans and sighs and lamenting publicly that he 'had not been able to eat any breakfast, because he had not been able to have his bawth, you know.'

"At Queenstown the inevitable old woman came on board. I had met her one year before, and do veritably believe that she is the identical old woman whom Noah hired to persuade his wife to get into the ark. 'Oi, she cried, as some of us stepped ashore, 'just look at the fine people that are coming ashore to-day!' —and then, fixing her Irish Moran nose on me, she continued: 'Now, darling, let me give ya a bit of the shamrock; it'll give ye good luck in Oirland.' There was no chance of resisting. She swooped down on me like a regiment of cavalry, and before I had time to say a word she had pinned a nice little sprig on the lapel of my coat.

"Afterward, when we were about to leave, the same gray-haired old lady—her entire appearance reminding me very much of Charlotte Cushman as Meg Merrilles—came alongside with a pail of milk—goat's milk, she was careful to inform us. There was not much time to spare. The tender on which she was was just about to steam off, so she sent up her pail to the big ocean steamer that seemed to frown down in scorn on the little craft below by means of a rope. The pail got up all right, but was unhappily intercepted by some thirsty steerage passengers, who drank its contents and deposited a sixpence—12 cents—in the bottom in mild recognition of the fact. And the pail went down again—empty except for the sixpence—and you should have heard the howl of lament that went up from that patriarchal Biddy when she saw and explored it. 'A sixpence!' she cried, 'a dirty, miserable Saxon sixpence! And after I was paying as much to come out here! Oh, the miserable spalpeen, if I only had her—Ochone, Ochone, it's myself that's the ruined woman intirely!' The old lady's distress was really very pitiful to see, and her 'lyart locks' and woe-begone appearance affected me so much that I asked her to pass up her pall again. She did so, and I dropped a coin into it, and a number of the other passengers doing the same, Biddy was in a few moments the happy possessor of something like £2—or \$10. And you ought to have seen the gratitude on her face, as with eyes streaming with joyful tears, she looked up at me and cried: 'Ah, sor, may God fall in love wid you!' A minute before she had been hurling anathemas of the most vigorous kind at the unknown person who had drunk her milk. 'And goat's milk, at that,' she cried, 'the dirty, miserable spalpeen!' and the sudden change to pathos and 'May God fall in love wid you' was what you newspaper critics would call dramatic. And the phrase became a byword on the steamer, so much that I could hardly take a step without some lady whispering, in a sort of sotto-voce tone that every one could hear: 'Oh, sor, may God fall in love wid you.' I am not quite sure, but I think it was the same old lady of whom the story is told that one day after following a traveler for some time and imploring him to buy some flowers or fruit, she suddenly changed her tone from 'May good luck always follow ye,' to the somewhat different—"and never overtake ye." I have a different recollection of having heard this in a circus years ago, but as the story has some point in it this is probably a hallucination on my part.

## Marrying for Money.

"Society is getting into a strange state," said a very observant middle-aged lady the other day. "It seems as if every one were 'fortune-hunting' at our best-known summer resorts. I have been away all summer, and have had abundant means of

studying the young people. From my observations during the past few seasons I have come to the conclusion that the idea that money is the only thing in life worth living for is growing steadily year by year. Haven't you noticed how few matches have been reported as the result of the past vacation? Well, it seems to me that the first thing the girls ask nowadays when they meet a young fellow is, 'How much money has he?' and the young gentlemen in their turn inquire: 'Has she got any money?' A week or two ago I was talking with a charming girl at Bar Harbour, and the subject turned to marriage. Her ideas on the subject were expressed with the greatest sincerity, and with an innocence that was charming. When I referred to so-called 'marriage for money,' and expressed the opinion that they usually resulted unhappily, she exclaimed: 'Why, I should consider it an insult if any one asked me to marry him if he wasn't rich.' This seems to be a fast-growing, if not a prevailing opinion among the youths of both sexes to day. The mammas go to the summer resorts with the hope of making 'good' matches for their daughters—'good' in a pecuniary sense, I mean—and the girls soon imbibe their mothers' ideas.

"Well, how is it with the young men? They go fortune hunting, too. Both have an idea that by marriage they must better their financial condition in the world, and the result is, as I stated, that fewer matches are made than formerly. It is getting so that a hundred-thousand-dollar fellow hates to 'throw himself away' on a ten-thousand-dollar girl, and vice versa. Each wishes to better his or her condition. I read a few days ago of a lady who said she had met sixty girls this summer who would never marry because they thought they could not wed a large quantity of money. Isn't it ridiculous? Yes, society is getting into a strange state, and I sigh for those good old days when 'love in cottage' was quite enough for the young people. Love is the only source of true happiness, and these money matches cause more unhappiness than anything else in the world." —Boston Gazette.

## Forgot the Mail Feature.

The other day while Major Dodridge was sitting in his dooryard the gate opened and a strange looking man hastily approached.

\* Is this Major Dodridge?

"Yes, sir."

"Of the Eighth Arkansas during the war?"

"Yes;" beginning to look with interest at the stranger.

"Don't you remember me, major?"

"No, I can't place you."

"Take a look at me," shoving back his hat.

"Don't remember that I ever saw you before."

"I am Hank Parsons!" exclaimed the man, bracing himself as though he expected the major to rush into his arms.

"Don't recall the name," said the major.

"Is it possible? I did not think you would ever forget me. I'll refresh your memory. At Sailor's Wharf, the battle was raging in murderous fury, I found you lying on the field shot through both legs. I took you on my back and carried you to a spring in the shade. Now don't you recollect me?"

"Let me see," mused the major. "I remember having been wounded; but I can't recall the fact, if it be a fact, of any one taking me to a spring."

"This is, indeed, strange, said the disappointed man. "I looked forward to meeting you with such anticipations of a warm greeting. Well, well! The world has indeed reached its ungrateful age. The occurrence is as fresh to my mind as though it had taken place yesterday. I gave you a drink of whisky and—"

"What!" exclaimed the major, springing to his feet. "Gave me a drink of whisky! Oh, yes, I remember now—seizing the man's hands. "O, I'll never forget that drink! The whisky was so new that corn meal was floating around in it, but we enjoyed it. Remember you? Why, I should cavor. Why didn't you guard against possible embarrassments by mentioning some of the main features of the occurrence?" —Arkansas Traveller.

## Impediments.

There is a story told of old Andrew Jackson Allen, a kind of Caleb Quotem in the theatrical profession. He was known to hundreds who never set foot in a theater in their lives.

He was very deaf, and had an impediment in his speech which prevented him from pronouncing an *m* or a *c* correctly.

"I bus't talk," said he one day to a friend, "I expect as lo'g as I live, as if I had got a perpetual cold id my'd. I can't produce addy thidg that's got ab or ad ed id it, as it shud be produced."

Allen was a sturdy American; and on one occasion he went around portions of South engaged in sending up a series of balloons, in opposition to an old Frenchman; appealing in his advertisements to the patriotic feeling of his "patrons" to *sust* his balloons, on the ground that they were the "true American article," while those of his rival were decidedly French.

In the course of his peregrinations he went into Virginia, causing his balloons to ascend from every village. At one of his stands he found great difficulty in getting together the proper materials for generating gas; nevertheless he advertised that the exhibition would take place, and providing a quantity of the spirit of turpentine to burn under the balloon, he hired a large garden, into which the Virginians flocked in great numbers, each paying fifty cents at the oddly advertised establishment. —Utica Observer.

The boys said they did hear, and promised to obey instructions implicitly. And they were as good as their word.

The master-spirit made his way to the gate, where he requested the door-keeper to "had'v over the *fuds*."

"There's such a crowd dowd there," said he, "that there's tell'g what bay hopped id the codufusid."

He mounted a pony which he had wisely provided for the purpose and gallaped off for the drug store; but mistak g the entrance to the fair ground they espied a donkey and cart, and in the absence of the owner (probably on business inside) it was arranged that "Jock" should unlode and sell the "cuddy," while Willie was to dun the harness, and squattoned on "all fours" between the "trams" await with becoming patience the turn of events. In due time the owner made his appearance, and awe-stricken at the extraordinary spectacle, muttered as he came near:—

"An' who are ye, laddie?"

"I'm drunks Willie S——, and, O, man, ye dinna keen boo willie ha been whuppin me about the kialra! But I'm comin' ta mesel again, an' I want the gang haemtame' father!"

"Puir lairdie, Gang haemtame' faither at yun-e. I'm rasil sorry for e, but as say, I didda ken!"

Willie, it is scarcely necessary to add promptly divested himself of his donkey trappings and meeting his confederate little later on, a due proportion of the proceeds of the sale was spent there and then in celebrating the success of the audacious scheme.

"Do you really think the cereals are stronger than meat?" was asked.

Certainly," he said. "Our pound of dry wheat or flour is worth as much as three pounds of wet beef. Scald the pound of flour and see. You have a gal of mush. You could eat it in three days. If you feed the cereals to cattle as they do in England, it takes eight pounds of grain to make a pound of meat. So, why feed the grain to animal tramps? Why not eat it ourselves and do away with a surplus population of 50,000,000 cattle, and about 20,000,000 cattle, hogs, and sheep. One acre of cereals in France will support five men, while it would take two acres to support one steer; and, in the end, one man would eat the steer. The advantage of cereals over meat is as five to one. So you see the steer is an unnecessary tramp. The Englishman insists on roast beef, every pound of which costs eight pounds of cereals. The Frenchman eats the cereals himself. He buys millions of gallons of cotton seed oil in America at three cents per pound. This he eats in his salad, in his soup, and in his bread and piecrust. The Frenchman refines millions of gallons of American cotton seed oil, sends it back to America and sells it for \$2 or \$3 a gallon. Cotton seed oil is superseded peanut oil, and olive oil is almost a thing of the past. For years the peanut crop of Tennessee and North Carolina has been sent to Marseilles and made into olive oil. Cotton seed oil has been found by the French to be better and cheaper than peanut oil. To day all Spain, southern France, Italy, Turkey, and Austria are living on American cotton seed oil. All an Italian gentleman or laborer wants is oil, macaroni, bread, sugar, wine or coffee. Cotton seed oil takes the place of meat. It is strange that your southern states have been for years throwing away millions of barrels of beautiful cotton seed oil and buying unhealthy pork and lard in its place. Corn meal cooked like macaroni with oil and cheese is delicious food."

## Bucket Shop Decoys.

Speaking of false pretenses, some of the seats in our elevated railroad cars are so arranged that two passengers sit back to back with another two. Thus four mouths and eight ears are brought so close together that each couple is bound to overhear the conversation of the other couple. The men who were so placed in my hearing yesterday, as I rode down town, had the aspect of business solidarity. They spoke in the language of Wall-street, and their manner was brisk and confident. The topic between them was a venture in petroleum, and one was congratulating the other on the fortunate outcome of the deal.

"How much does it stand you in?"

"Nine hundred dollars."

"And how much did you risk?"

"Only fifty."

"How long did it take?"

"Three days."

So ran the dialogue, exultant, assertive, convincing, and it set me to thinking whether I hadn't been foolish in always keeping out of speculation. Then came the information by which, it seemed, I might go and do substantially what this man had done. "I'll let you into a point," he said to his companion, and went on to say that he was going to invest a hundred dollars on oil at a certain broker's office, the street and number of which he gave with careful exactness, while the other wrote it down, with a test of gratitude for the valuable tip. Then one whispered "Hush" and glanced significantly at me. It was clear that I had accidentally become possessed of knowledge which I might turn into hundreds of dollars, for they had agreed that it was a good thing. In the afternoon on my way up town, I happened to sit in the same position relative to the same men; but it was not by chance that they repeated the same language almost word for word. They were decoys for the gambling hell or bucket shop, which they were so careful to locate. It was their business to be overheard by those who might thereby be led to lose money in the oddly advertised establishment. —Utica Observer.

VARIETIES.

HOME LIFE IN AMERICA.—The next room, Door shut. Nothing visible except an audible voice, audibly speaking orally in vocal accents:

How!

There, now!

Hop' up!

Hole dup!

Hold dup your red!

Can't you hold your head dup?

Puttin' in!

Puttin' in your foot!

Turn a round!

Oh, goodness gracious! don't you know how to turn around?

Hold your head still!

Don't do that!

The other arm!

Oh, great land, go to your mother!

It is a man dressing his infant son in the morning.—Bob. Burdette.

IT WOULD NOT WORK.—He entered the restaurant and called for a beef stew and a cup of coffee. Having eaten about two-thirds of the stew and consumed the coffee, he suddenly started back asthag.

"Walter! walter!" he loudly called, and when individual appeared he demanded that the proprietor be immediately summoned. "What is it, sir?" asked the latter.

"Look! there! sir! look there! I shall never recover!" and he pointed to a large exposed roach that costly nestled in the stew.

"Look at that animal in your stew, sir! Fresh air! Fresh air, or I perish!" and he started for the door.

But the landlord simply said to the waiter: "Take away his meal ticket, John," and the waiter, seizing by the neck, drew out six other similar dead roaches from his vest pocket and kicked him out of the door.

"It won't work," murmured the landlord; "it won't work. Ours are all stamped on the back."

"Are you going to make your husband a Christian present this year?" inquired Mrs. Tibbs of her dear friend Mrs. Sweet.

"Oh, yes! I shall give him just a splendid present. It will suit him exactly."

"Indeed! What is it to be?"

"I shall give him a box of those very expensive cigars of which he is so fond and which he complains that he can so poorly afford to buy."

"How have you managed to have so much money?"

"Oh! I haven't done it that way. When he

leaves his box carelessly on the library table, I take out one or two cigars and lay them away carefully, so that by Christmas I shall have enough to fill a box."

"What a perfectly lovely idea. Won't he be surprised."

A LAWYER living in Walnut Hills has a son about seven years old, and a daughter about three times that age. The boy has been around the court rooms a good deal, and the girl has a solid bear. The other evening the gentleman passed the house and the young lady wanted to see him.

"Johnny," said she to the kid, "won't you please call and see Mr. Mann?"

Johnny knew the state of affairs, and, with a ready "of course," he went to the front door and called out in the usual loud monotone of a cleric:

"John Henry Mann, John Henry Mann, come into court."

Mr. Mann came in, and Johnny withdrew to a safe place.

THEIR'S an old legend of the time when Bellwell was candidate for governor. He was a servant at the door, who demanded cards from visitors before they could be admitted. Cards do not grow in the rural districts, and even the playing cards are not of the best quality. But the story has nothing to do with cards. One day an old miner and his family called. The servant answered the call.

"Is the governor's folks at home?" demanded the old digger.

"Are, papa, are, not is," said the Mills Seminary daughter.

"Are the governor in? said the old man, and the young lady faltered.

SOME years ago, when a new railway was opened in the Highlands, a Highlander heard of it and bought a ticket for the first excursion. The train was about half the distance to the next station when a collision took place, and Donald was thrown unmercifully into an adjacent park. After recovering his senses the neighbors asked him how he liked his ride.

(Continued from first page.)

by Usurper, and has a large proportion of Bates blood. The young animals in this herd are looking well, and are a thrifty growthy lot, while the herd contains a number of good ones that are now breeding. They place much reliance in their three-year-old Airlie Belle Duke \$d. 1064. He was purchased after a lengthy time of search, from his breeders, J. W. Embry, of Richmond, Ky., and B. F. Bidford, of Paris, Ky. He is red, finely proportioned, and really a valuable animal. He was got by Duke of Mayflower \$329, out of Airlie Belle 4th by 14th Duke of Thorndale, having for 7th dam Rose of Sharon, by Belvidere \$8. The Duke of Mayflower was bred by A. Renick, of Ky., was got by the 4th Duke of Geneva (a pure Duke) which Mr. Renick purchased in May, 1873, and for which he paid \$6,000. The 14th Duke of Thorndale was also a pure Duke and one of the most celebrated sires in America, selling at 18 months old for \$5,500, and again at a public sale in 1876 for the highest price ever paid for a Shorthorn bull in the country, \$17,900, while the Rose of Sharon family is and always has been very popular in this country, nearly 50 head having been exported to England within a few years. It will be seen therefore that Messrs. K. & F. were particularly fortunate in getting a sire of such high breeding, and we believe that time will show him to be valuable as a breeding animal. He is superior in blood, and strong, vigorous and healthy.

We call the attention of our readers to the Enterprise Meat Chopper advertised in our present issue. The demand for these Choppers has attained such immense proportions that the manufacturers have been compelled to largely increase their facilities for making them, and we are assured that they are now being turned out at the rate of 2,500 per week, 150 hands being steadily employed on them. There can be no doubt as to the excellence of these Choppers, as they have been tested by the editors of nearly 100 agricultural papers, who have given them a hearty endorsement. We cordially recommend them to all our subscribers as by far the best machine of the kind ever introduced to public favor.

## Veterinary Department

*Conducted by Prof. Robert Jennings, late of Philadelphia, Pa., author of "The Horse and its Diseases," "Cattle and their Diseases," "Sheep, Lambs, and Poultry," "Horse Training and Management," etc. Subscriptions \$1.00 per year. Send contributions to the editor. The contents of this journal to regular subscribers free. Further descriptive information will be required to ascertain full name and address of the subscriber. Contributions will be accepted and paid for, unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, how they are manifested, and the treatment of the disease, and what treatment, if any, has been resorted to. Private address, 901 First Street, Detroit.*

### CONTAGIOUS PLEURO-PNEUMONIA.

This terrible scourge now agitating the minds of breeders and owners of neat cattle in the United States, has had an existence in this country for nearly forty years. Its presence was not suspected, however, until the importation of Holland cattle by W. W. Cheney, Esq., of Belmont, Massachusetts, in May, 1859, the history of which, and the great excitement it caused all over the country at the time, has not yet been forgotten.

The prompt action at a special session of the Massachusetts State Legislature, it was believed, stamped out the dreaded disease in that State. In the Brooklyn and Williamsburgh, (Long Island) dairies, the disease has had an existence since the year 1848. But its true character was not suspected. Previous to this importation of Holland cattle, Frank Leslie's Illustrated Paper made war on the Brooklyn and Williamsburgh dairies, publishing amusing caricatures of the stump-tailed and long-hoofed cows kept in those establishments—the result of slop feeding and long confinement in the cow houses. Leslie designated it as "swill milk disease," and by that name it was known. After the Pleuro-pneumonia excitement had somewhat subsided, attention was directed to this swill milk disease, which upon investigation, proved to be identical with the Massachusetts Pleuro-pneumonia, and proved to have been introduced by the purchase of a cow several years previous, from a ship arriving from England, by Messrs. Schneidam & Schenk, of South Brooklyn. This cow, in apparent health at the time of purchase, was removed to the cow houses, where in a few weeks she sickened and died. Here was the starting point. Other cases in the same cow house soon followed, and the disease was communicated to other dairies, in the same and adjoining neighborhoods. Mr. C. P. Prentice, Albany, N.Y., says:

"It was introduced into my stock, in the fall of 1853, by one of my own cows, which in the spring of the year, I had sent to my brother in Brooklyn, to be used during the summer for milk. She was kept entirely isolated throughout the summer, and in November was sent up by the boat. After she had been home about two weeks, we noticed that her appetite failed, and her milk fell off; she seemed dull and stupid, stood with head down, and manifested a considerable degree of languor. Soon her breathing became hurried and with a decided catch in it, she ground her teeth, her cough increased, and so, too, a previous and bloody discharge from her nostrils. Her coat was thin and brittle as lead, black and hard. The symptoms increased in intensity, strength diminished, limbs drawn together, belly tucked up, etc., until the eighth day, when she partially lay, and partly fell down, and never rose again. In about three weeks from the time she died, one and then the other, starting on either side of her, were attacked in the same way, and with but two days between. This certainly looks very much like contagion. Of all that were taken sick (sixteen), but two recovered."

It is evident that the disease was, in some manner unknown, communicated to Mr. Prentice's cow while in Brooklyn, and from her communicated to his home cattle. No malady can be more terrible and noxious than this among dairy stock, and its spread all over the country, together with its continuance with scarcely any abatement, must be attributed to the

combination of various causes. The chief are: the unwillingness of owners of cows, in the vicinity of cities, more particularly, to acknowledge the presence of the disease in their dairies; the selling of calves from infected districts; the reckless purchase of dairy, or feeding cattle, at city markets, etc. The disease is so insidious in its approach, so difficult of detection in its early stages, and so fatal in its termination, as to justify the most stringent means for its suppression.

### SYMPTOMS.

The premonitory symptoms remain latent in the system for weeks, and sometimes months, after exposure to the infection, before the true symptoms of the disease can be detected even when examined by an expert veterinary surgeon. Yet the disease is gradually planting its poison in the lungs of the infected animal. This latent condition may account for the difficulty and uncertainty of effectually stamping out the disease in an infected part of the country. The difficulty of recognizing the disease in its early stage is one great cause of its fatality, giving no warning until too late for medical aid. The beast imparts contagion to others in the field or stable. An animal exposed to the infection cannot be regarded as safe short of sixty to ninety days after exposure. The first perceptible symptoms usually observed by the herdsman of an exposed herd, are the wandering away of the diseased animal in the early morning when in the field, with staring coat, arched back, and loss of appetite. As the day advances it again mingles with the herd, apparently in its usual health. In this stage of the disease a crepitant or crackling sound is heard on placing the ear to the side of the chest over the diseased lung. The respiration is now slightly disturbed, perhaps a cough is present, usually of a husky character, and if a milker, a diminished quantity of milk is given. From this time the cough becomes more constant and oppressive, the pulse full, frequent and trembling; pressure between the ribs induces the grunt so characteristic of pleuritic pain. The symptoms now increase in intensity, the eyes become bloodshot, mouth clammy, urine scanty and highly colored, the lungs become consolidated, serous effusion fills the vacant space in the chest, the grunt is more distressing, or moaning from pain, respiration more labored, diarrhea of an offensive character sets in, pulse scarcely perceptible, legs, horns and muzzle cold, and death ends the scene. These symptoms vary in different animals, governed by the condition of the animal and extent of disease in the lung.

### MUSICAL.

From the Boston Evening Traveller.

THE KNABE PIANO, which has such a wide popularity, is considered by many experts to be superior in every way to any other piano in the world. The success of this Piano has also been attained by years of careful study, and the Knabe, with its excellent singing qualities, its great power, the elasticity of touch, and superior workmanship, is justly the favorite. Herr Faehren's piano solo's in the recent Worcester festival, the Schumann's concerto in A minor, op. 54, and a clear reproduction of the famous piano solo's of Liszt, were both performed upon a Knabe Piano. Herr Faehren pronounces it to be the best Piano he had ever seen.

When the Mason and Hamlin Company announced the accomplishment of a great improvement in Upright Pianos, which they would soon give to the public, much was expected because of the number of improvements which had been effected by them in instruments, and the acknowledged super-excellence of their organs. These expectations are fully justified by the pianos which they are producing, which have extraordinary power and refinement of tone. Every mechanic will see that the peculiarities of their construction must add greatly to their durability and expense.

This company has at great cost in their pianos which are already realizing in their organs, which are confessedly unequalled among such instruments.—Boston Traveller.

## COMMERCIAL.

### DETROIT WHOLESALE MARKET.

Detroit, Nov. 18, 1884.

**Flour.**—Receipts for the past week, 3,762 bbls, against 2,238 the previous week, and 3,572 bbls, for corresponding week last year. Shipments, 4,196 bbls. Neither receipts nor shipments are large but must be fairly balanced, and the market though dull maintains a steady range of values. Millers are not pushing business, and trading is confined entirely to immediate requirements. Quotations yesterday were as follows:

Michigan white wheat, choice... \$3 75 40 Michigan white wheat, roller process 4 00 50 Michigan white wheat, patent... 5 00 25 25 Minnesota, patent... 5 75 65 00

**Corn.**—Market steady but quiet. Fall cream state ranged at 11 1/2¢ to 12 1/2¢ per lb., and favorite brands at 12 1/2¢.

**Oats.**—Market very quiet. No 2 white are quoted at 12 1/2¢, and No 2 mixed at 27 1/2¢ per bu.

**Barley.**—Fine Stale samples are in demand, and as high as \$1 40 @ 15¢ per cent has been paid for choice. Quotations range from \$1 30@25¢ for the average of the receipts. No Canada barley offered. Western is not wanted.

**Rye.**—No 2 is quoted at 52 1/2¢ per bu., and rejected at 48¢.

**Feed.**—Barley, \$1 per ton. Middlings are nominal at \$1 50 per cwt, and \$1 40@16¢ for fine; a carat oats, \$20 per ton.

**Corn-meal.**—Quiet and steady at \$20 per ton for feed.

**Buckwheat Flour.**—Dull, with light demand. Choice eastern about 37 per bbl; in bulk about \$3 50 per bbl for eastern, and \$3 20 for State.

**Butter.**—The market appears to be demoralized, and except for choice fresh made, which is not in large supply, values are weak and unsettled. Choice table butter would command 22¢ to 28¢ when of fine flavor, and creamy 28¢ to 30¢. For the ordinary ran of receipts 18¢ to 20¢ is all that can be realized, and it is very slow at those figures.

**Cheese.**—Market steady but quiet. Fall cream state ranged at 11 1/2¢ to 12 1/2¢ per lb., and favorite brands at 12 1/2¢ to 13 1/2¢.

**Eggs.**—In large supply, and quoted at 22¢ per doz. for fresh, and 19¢ to 20¢ for pickled.

**Honey.**—Market steady at 14¢ to 15¢ per lb., the latter price for fine white comb. Strained, 10¢ to 12¢.

**Beeswax.**—Scars and fats at 32¢ to 35¢ lb in stock, and 32¢ to 35¢ from hands.

**Onions.**—Quiet and steady. Quotations are \$1 20@40 per bbl.

**Potatoes.**—Demand limited and 30¢ to 35¢ for car-

loads is about all that can be realized. Farms are steady 30¢ to 35¢ per bu, for small lots on the street.

**Small Fruits.**—Grapes in light supply at 10¢, 11¢ for Catawba. Cranberries are offering at \$4 50 to \$4 75 per crate or \$130 per bbl. Michigan and Wisconsin about 50¢ per bu. lower.

**Apples.**—Receipts are large, and market dull at \$1 75@200 per bbl, for fair to good winter fruit. Very little demand for shipment.

**Quinceas.**—The market is very dull at \$1 25 per bu.

**Cabbages.**—In fair supply at \$3 50@35 per 100 lbs.

**Poultry.**—Live young fowls command 70¢ to the coop; dressed, 10¢ to 14¢ per lb.; turkeys, 15¢ to 18¢; ducks, 12¢ to 14¢, and geese 10¢.

**Hay.**—Baled hay is worth \$12 00@14 per ton, according to quality, strained \$6@10 per ton.

**Clover Seeds.**—Market dull at \$4 25@35 per bu. at Toledo it is quoted quiet at \$4 25@35 per bu.

**Timothy.**—Market quiet at \$1 35 per bu. for choice.

**Redtop.**—Market quiet at \$1 35 per bu. for choice.

**Brassicas.**—Market quiet at \$1 35 per bu. for good State stocks. Offerings are light.

**Provisions.**—Market easy and tending downwards. Barreled pork and lard have declined; hammeets also lower. There is an easier feeling in the market, and lower prcs predicted. Quotations in this market are as follows:

**Mess.**, new... 13 00 12 75 12 50

**FAMILY**, new... 12 25 12 00 11 75

**CLEAR**... 15 00 14 50 14 00

**LARD**, in barrels, per lb... 7 00 6 50 6 00

**HAMS**, per lb... 12 50 12 00 11 50

**SHOULDERS**, per lb... 7 50 7 00 6 50

**CHICKE** bacon, per lb... 11 50 11 00 10 50

**TRIPPE**, per lb... 10 50 10 00 9 50

**TALLOW**, per lb... 5 50 5 00 4 50

**DRIED** beef, per lb... 13 50 13 00 12 50

**HAY**, the following is a record of the sales at the Michigan Avenue scales for the past week:

**MONDAY**, Nov. 18... 38 loads: Ten at \$17; seven at \$16; six at \$15; four at \$14; three at \$14 50 and \$14.

**TUESDAY**, Nov. 19... 37 loads: Eleven at \$17; eight at \$15; five at \$14 and \$13; three at \$16; two at \$14 50; one at \$15 50 and \$15 75.

**WEDNESDAY**, Nov. 20... 38 loads: Sixteen at \$17; eight at \$16; six at \$15 50 and \$15 75.

**THURSDAY**, Nov. 21... 40 loads: Ten at \$17; eight at \$16; seven at \$15 50 and \$15 75; one at \$16 50 and \$16.

**FRIDAY**, Nov. 22... 40 loads: Ten at \$17; eight at \$16; six at \$15 50 and \$15 75; three at \$14 50 and \$14.

**SATURDAY**, Nov. 23... 41 loads: Eight at \$17; nine at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**SUNDAY**, Nov. 24... 42 loads: Nine at \$17; ten at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**MONDAY**, Nov. 25... 43 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**TUESDAY**, Nov. 26... 44 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**WEDNESDAY**, Nov. 27... 45 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**THURSDAY**, Nov. 28... 46 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**FRIDAY**, Nov. 29... 47 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**SATURDAY**, Nov. 30... 48 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**SUNDAY**, Nov. 31... 49 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**MONDAY**, Dec. 1... 50 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**TUESDAY**, Dec. 2... 51 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**WEDNESDAY**, Dec. 3... 52 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**THURSDAY**, Dec. 4... 53 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**FRIDAY**, Dec. 5... 54 loads: Ten at \$17; eleven at \$16; six at \$15 50 and \$15 75; one at \$16 50 and \$16.

**SATURDAY**, Dec. 6... 55 loads: Ten at \$17; eleven at \$